National Library of Canada
Canadian Theses Service
Ottawa, Canada
K1A 0N4

Bibliothèque nationale du Canada
Service des thèses canadiennes

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

NL-339 (r. 88/04) c

Canada

UNIVERSITY OF ALBERTA

BEHAVIORISM, WOMEN AND THEIR EDUCATION: THE IDEAS OF JOHN BROADUS WATSON

BY

MARIA DI CASTRI

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF EDUCATION

IN

HISTORY OF EDUCATION

DEPARTMENT OF EDUCATIONAL FOUNDATIONS

EDMONTON, ALBERTA

FALL, 1990

National Library of Canada
Bibliothèque nationale du Canada

Canadian Theses Service
Service des thèses canadiennes

Ottawa, Canada
K1A 0N4

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-64880-5

UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: MARIA DI CASTRI

TITLE OF THESIS: BEHAVIORISM, WOMEN AND THEIR EDUCATION: THE IDEAS OF JOHN BROADUS WATSON

DEGREE: MASTER OF EDUCATION

YEAR THIS DEGREE GRANTED: 1990

PERMISSION IS HEREBY GRANTED TO THE UNIVERSITY OF ALBERTA LIBRARY TO REPRODUCE SINGLE COPIES OF THIS THESIS AND TO LEND OR SELL SUCH COPIES FOR PRIVATE, SCHOLARLY OR SCIENTIFIC RESEARCH PURPOSES ONLY.

THE AUTHOR RESERVES OTHER PUBLICATION RIGHTS, AND NEITHER THE THESIS NOR EXTENSIVE EXTRACTS FROM IT MAY BE PRINTED OR OTHERWISE REPRODUCED WITHOUT THE AUTHOR'S WRITTEN PERMISSION.

(Student's Signature)

23 Fair Oaks Drive
(Student's Permanent Address)

St. Albert, Alberta

DATE: OCTOBER 5, 1990

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommed to the faculty of Graduate Studies and Research for acceptance, a thesis entitled BEHAVIORISM, WOMEN AND THEIR EDUCATION: THE IDEAS OF JOHN BROADUS WATSON, submitted by MARIA DI CASTRI in partial fulfillment of the requirements for the degree of MASTER OF EDUCATION IN HISTORY OF EDUCATION.

Supervisor, Dr. P.J. Miller

Dr. D. Wangler

Dr. P. Browne

Date: September 26, 1990

ABSTRACT

This study is concerned with John Broadus Watson, his theory of behaviorism and his ideas about women and their education.

To facilitate an understanding of the subjects under consideration here, the thesis begins in Chapter II with an overview of Watson's life and discussion of those experiences and social factors which appear to have contributed to the shaping of his behaviorist theory and attitudes toward women.

Chapter III recounts the premises and development of Watson's theory of behaviorism, which held that the methods of natural science are necessary and wholly adequate for the study of human psychology. It briefly discusses the response of the scientific community and some of the factors which made his theory famous and popular far beyond those confines.

In Chapter IV, Watson's social theory - especially as it is revealed in his popular works of the twenties - is examined. His explanation of social change and his faith in behavioristic prescriptions for a better, scientifically shaped society are described and evaluated on the basis of their internal logic and against the claims of his scientific theory.

Chapter V describes Watson's educational advice to and about contemporary women and describes his ideal for the behavioristic education of young women. The validity of his conception of women's nature and his educational ideal for them is discussed within the logical framework of his scientific and social theories and with respect to the pronounced and actual aims therein.

Chapter VI draws together the major conclusions of the study and observes that, like his behaviorist theory, which evolved less upon concrete scientific data than his desire to see psychology redefined as a technology suitable for predicting and controlling human behavior, Watson's ideas about women and their education reveal a greater committment to the entrenchment of contemporary ideals of masculinity and femininity than to the methods of natural science.

ACKNOWLEDGEMENTS

The assistance of all those individuals who patiently supported the completion of this thesis is greatly appreciated. In particular I would like to thank my thesis supervisor, Dr. Peter J. Miller, for his invaluable guidance and careful editing of the written text, and Dr. Patricia Rooke for her excellent introduction to the fields of women's and feminist history. My gratitude is also extended to the staff of the University of Alberta Inter-Library Loans Office without whose diligent efforts many important resources would not have been at my disposal.

TABLE OF CONTENTS

CHAPTER PAGE

I INTRODUCTION..........1

II COMING TO GRIPS WITH LIFE AND WOMEN: THE BIOGRAPHICAL BACKGROUND TO WATSON'S THOUGHT...10

III WATSON, THE SCIENTIST OF HUMAN BEHAVIOR..........51

IV WATSON, THE SOCIAL THEORIST..........86

V WATSON ON WOMEN AND THEIR EDUCATION..........118

VI CONCLUSION..........148

SELECTED BIBLIOGRAPHY..........155

CHAPTER I

INTRODUCTION

I wish I could picture for you what a rich and wonderful individual we should make of every healthy child if only we could let it shape itself properly and then provide for it a universe in which it could exercise that organization - a universe unshackled by legendary folklore of happenings thousands of years ago; unhampered by disgraceful political history; free of foolish customs and conventions which have no significance in themselves, yet which hem the individual in like taut steel bands.

J. B. Watson,
Behaviorism, 1924

There are no women in industry as such. They are not needed there. They are needed in the home. They are happy there. The jobs of keeping themselves young and beautiful, useful, and of learning about home science, give them all the activity they need. They have no time for straight industrial pursuits. They realize that they cannot eat their cake and have it too. Their life is just as serious and rich in achievement and endeavor as the men's.

J.B. Watson, describing
his Utopia in Liberty
Magazine, 1929

When John Broadus Watson offered his vision of behaviorism as a foundation for future experimental ethics, the American public was captivated by the idea of freedom in a world shaped and controlled by the objectivity of science, a world where strict environmentalism and the scientific program of behavioristic child-rearing promised equal and amazing opportunities for all healthy children regardless of their genetic and social heritage. Throughout the twenties, although he was no longer actively involved in psychological research, Watson commanded what were said to be the highest fees of any American writer of the genre for articles elaborating upon his psychological theory and social vision. Many of these were commissioned by popular magazines and directed at female readers, who might legitimately have expected to hear how the liberating alternatives suggested in Watson's book -- Behaviorism might apply to them.

The purpose of this study is to present an analysis of the ideas of J.B. Watson, his scientific theory and thoughts about women and their education, with a view to understanding the contradiction between his equalitarian vision of a brave new world and his actual prescriptions for educating women to a biologically justified destiny as the sexual playmate and domestic servant of man.

Watson emerges as a central figure of significance in this century when we consider the fundamental importance of behaviorism in shaping the modern world and as a dominant ideology in the educational world. In 1957 the American Psychological Association awarded him a gold medal and cited his work as

> . . . one of the vital determinants of the form and substance of modern psychology. He initiated a revolution in psychological thought, and his writings

> have been the point of departure for continuing lines of fruitful research.[1]

He served as president of the American Psychological Association in 1915, was a member of the American Physiological Society, Fellow of the American Academy of Arts and Sciences and, for varying periods, editor of the learned periodicals: Journal of Animal Behavior, Behavior Monographs, the Psychological Review and the Journal of Experimental Psychology. His early work in the field of animal research and his ingenuity in the equipping and design of laboratory research apparatus have also been recognized as exemplary. According to Bertrand Russell, Watson had done more for psychology than anyone since Aristotle.[2] A great deal has been written and said about Watson, his psychology of behaviorism and its influence on American social thought. Within the last twenty-five years, particularly within the last fifteen, his name has begun to resurface with interest within the context of more general discussions of the political ramifications of the development and professionalization of the social sciences and mass advertising during the opening decades of this century. More recently, historians and academics interested in the topics of feminism, gender study and parent education have drawn attention to his importance as a major figure in the psychological reinvention of femininity; yet none have given an independent and thorough treatment of his ideas for the education of women. This constitutes an important gap not only in our comprehension of the impact of behaviorism on educational theory and more specifically women's education but also in our understanding of the decades between 1910 and 1930, which have been recognized as a much neglected yet critical transitional period between the nineteenth century women's movement and the inauguration of modern feminism in America. This thesis, while limited in scope, will contribute to the redress of this situation.

Assembling the relevant details of Watson's life was made difficult by a number of factors. As Watson's sole and unappointed biographer David Cohen noted: "Watson did not mean to help any biographer."[3] He had many of his papers burned before his death and openly expressed the view in his lifetime that everyone has entirely too much to conceal to either want to or be able to write an honest autobiography.[4] Accordingly Watson revealed extremely little of his personal life in the single and very brief autobiographical piece which he wrote for Carl Murchision's A History of Psychology in Autobiography (1930). For a study such as this, it would have been preferable to have had access to more primary source material, as well as more information on and possibly from the point of view of the women in Watson's life. Cohen himself has done the scholar a diservice by failing to footnote his work, and to ensure the correctness of his bibliographical references making further research or verification of his data very difficult and, in some cases, impossible.

Most of Watson's discussion of women and their education is to be found in his popular works. Many of his articles from popular magazines and periodicals and the unpublished documents from the Alan Chesney Archives and the American Library of Congress were available through inter-library loans; however, there were other magazine and newspaper articles as well as reviews, radio and lecture transcripts which could not be located.

A further difficulty in formulating a cohesive picture of Watson's thought arises from his facile pronouncements and loose way of writing. He often seemed to get carried away with his own arguments, sacrificing consistency of thought for the sake of simplicity or clever polemics; not infequently he simply vacillated, mired by his own ambivalence. His use of generic masculine nouns and pronouns also presents a problem to the reader who seeks to understand his thoughts about women. Careful reading, contextualizing and consideration of a broad spectrum of his works at all times was required to ensure the most accurate rendering of his thoughts.

The veracity , practicality and actual reception of his ideas about women and their education are not at issue here. This thesis attempts only to present them, to place them within the greater context of Watson's personal experiences and his theoretical work in order to enlighten our understanding of their origins and to determine their validity within the logical framework which he has constructed.

As has been mentioned there is no body of literature which examines Watson's ideas about women and their education specifically. In fact, until recently Watson's more prescriptive and popular works were almost completely overlooked. Nancy F. Cott, in her historical work The Grounding of Modern Feminism (1987), provides excellent background information on the political and ideological context of those writings and, though her discussion of Watson is limited to a few pages, her assessment of his importance and her framing of the important issues for consideration in a study such as this make her work worth mention. Two works within Miriam Lewis' collection entitled The Shadow of the Past: Psychology Portrays the Sexes (1984), "Give Me a Dozen Healthy Infants..." by Ben Harris and "Not Quite New Worlds Psychologists' Conception of the Ideal Family in the Twenties" by Jill Morawski, recognize Watson's prescriptive advice to women within their discussion of general social determinants of Watson's scientific theorizing. Jill Morawski also makes reference to

Watson's ideas about women's role in her Ph.D. dissertation Psychology and Ideal Societies; The Utopias of Hall, MacDougal, Muensterberg, and Watson (1980), which examines the merging of normative prescriptions within his scientific theorizing . The same is true of Mufid J. Hannush in his doctoral thesis The Nature of the Relationship Between Biographical and Professional Values: A challenge to the Value-Neutrality of the Behaviorisms of J.B. Watson and B.F. Skinner. With the exception of a more lengthy review of The Psychological Care of Infant and Child in J.B. Watson The Founder of Behaviourism, David Cohen gives only a cursory review of Watson's popular works and never goes beyond a superficial analysis of his references to women. A number of authors have discussed Watson's personal struggle with and public role within the emergence of American culture from its religious orientation; however, of these only Clarence J. Karier in Scientists of the Mind Intellectual Founders of Modern Psychology (1986) has paid significant notice to Watson's popular works and was thus brought to comment upon his "macho, sexist values" and attempts to shape the female image along his preferred lines.[5] Other than these references, the literature on Watson has focused on his academic works and is primarily concerned with debating the merits of behaviorism as a psychological theory and discussing its influence on American social thought.

This thesis will proceed in Chapter II with an overview of the experiences and social factors which appear to have shaped Watson's life, his attitudes toward women, and his scientific theory. The premises and development of that theory are recounted in Chapter III. Chapter IV explains Watson's thoughts on the origins and evolution of society and how the science of behaviorism might positively influence it. Chapter V describes Watson's thoughts on women's nature and how they could be behavioristically educated for the most salutary personal and social benefit. The final chapter will review the major points of the thesis and present the writer's conclusion.

FOOTNOTES

1. American Psychological Association quoted in David Cohen, J.B. Watson: The Founder of Behaviorism (London: Routeledge and Kegan Paul Ltd., 1979), 280.

2. Cohen, 50.

3. Ibid., 2.

4. John B. Watson, "Feed Me On Facts," The Saturday Review of Literature, (June 16 1928): 967. Watson also wrote here that the attempt to write an honest autobiography would result in the suicide of the author or "oblivescent" depression, and that the script couldn't possibly be read by family members.

5. Clarence J. Karier, "J.B. Watson[1878-1958] The Image Maker," chap. in Scientists of the Mind: Intellectual Founders of Modern Psychology, (Chicago: University of Illinois Press, 1968), 139.

CHAPTER II

COMING TO GRIPS WITH LIFE AND WOMEN: THE BIOGRAPHICAL BACKGROUND TO WATSON'S THOUGHTS

On January 9, 1878, John Broadus Watson was born into the family of Emma Roe and Pickens Watson. Couched in the ardent and intrusive fundamentalist community of the Reedy River Church near Greenville, South Carolina, his farm home, though poor, reflected the virtues of rigorous morality, cleanliness and the fear of God and devil proper to any good Baptist home. But from an early age the namesake of the eminent baptist theologian and educator John Albert Broadus,[1] exhibited shyness and a possible distaste for Baptist pedagogy by skipping out of Sunday school to roam the countryside as often as possible.[2] Farm life and its activities suited John who enjoyed the outdoors, caring for animals, riding and practical manual skills. David Cohen, Watson's sole and unappointed biographer, suggests that John turned to manual work as a means of escaping mounting family tensions that arose out of the conflict between his mother's religiosity and his father's desires to live by a very different set of ethics.

John enjoyed good relationships with both his parents. His father liked to spend time with the boy, teaching him to handle the farm animals and encouraging his penchant for manual skills. Unfortunately, Pickens Watson was at great odds with the Baptist piety of his wife. He found her unrelenting religiosity constricting and rigid. As the years went by he began to drop the pretence of being a church man. Careless of the high standards and spying eyes of the intense and powerful Church community Pickens invited the mortification of his family with his laziness, swearing, drinking and, worst of all, his womanizing. Periodically he absented himself from family life and found carnal solace with Indian women from the Greenville area. When John was thirteen years of age, Pickens finally left the family altogether. For John it was a powerful experience of loss and betrayal for which he never forgave his father.

As an adult John Watson often reflected that his relationship with his mother was too close. Though he was a dedicated, son her love for him seemed to have overwhelmed him. He was anxious about its gripping effect on him. Emma was devoted to all of her children but John appears to have been her favorite.[3] Watson left no written record of the particulars of his relationship with his mother; however, it is quite clear that she must have been sorely disappointed that John did not embrace her faith and become a religious man. According to Cohen, Emma was not only "insufferably religious" she was also accustomed to getting her way. Emma was intelligent, sociable and energetic. She raised four children, worked the farm and was a principal lay organizer for the Baptists. She attended church regularly, hosted church meetings in her home and did her best to stem John's zest for secular life and its pleasures. In this she was quite unsuccessful. Witnessing the spectacles of fervor and religious ecstasies which punctuated the austere lifestyle of his mother and her religious community might have tempered his enthusiasm by making him suspicious of intense emotion. Watson clearly adopted Emma's virtues of disciplined industry and extreme cleanliness and, in spite of his savor for being the radical, he was never able to completely overcome the deference to authority that was the legacy of his Baptist indoctrination.

Central to Southern Baptist piety and pedagogy was fear of and obedience to God. It was not the place of humans to endeavor to understand the mysteries of the Divine but to dutifully follow the imperatives of a restrictive and rigid moral code lest they be damned to eternal punishment. The depravity of human nature necessitated that unregenerate children be taught early to obey the laws that would help them progress toward the perfection that God demanded of them. Fear and punishment were accepted as the indispensable tools of all those charged with the serious obligation of guiding children. Among these mothers were seen to be the very paragons of moral virtue, fittingly assigned responsibility for the moral education of children. The embodiment of emotion and sentimentality, they were also expected to be the voice that threatened and cajoled, wringing obedience and conformity from their children.

Young John Watson must have learned to expect fearsome admonishments and the burning lash of righteous Baptist disapproval as well as emotional lavishes from his devoted mother. Emma was assisted in the home by a black nurse who shared her fundamentalist zealotry. Though he was silent on the subject of his mother, Watson recounted several times that his nurse, with her tales of Satan lurking to catch little boys who went astray, had conditioned him to fear the darkness - a condition which persisted into adulthood. When the anti-religious and scandalous Pickens departed, Emma's hold on John was more complete. Watson grew to yearn for father figures and the company of men but generally found it difficult to give of himself to others, preferring instead to withdraw from intimate personal contacts. As an adult he often suffered from sleeplessness and depression.

John had not been doing well in school, perhaps owing to the disturbing scenes which must have gone on in his home. He did not improve with Pickens' departure.

John disliked his school years. He was socially awkward and had very few friends, preferring the company of animals and the absorbing activity of the workshop. Besides the fact that in spite of obvious intelligence, he was not achieving academically, John began to show many of the same traits that the community found so undesirable in Pickens. He was insolent with his teachers, swore liberally, drank and was given to violence. By southern Baptist standards he, like his father, showed too much interest in women, whom he had no trouble attracting with his winsome good looks.

At the age of sixteen, in quite a remarkable turn, John got himself admitted to the respectable Baptist institution of Furman University in Greenville. Whether it was a gesture to save himself from the reckless course of violence and trouble-making upon which he'd embarked or his only means of securing a future away from his tension ridden family or the religious, narrow and dull life of Greenville, he had motive enough. It is likely that Watson exerted the full force of the persuasive charm that came to grace his adulthood in convincing the President of Furman that he was indeed earnest and intelligent.

Furman University was committed primarily to the formation of Baptist ministers but offered a variety of courses of study. In his five years there Watson studied

Greek, Latin, history, science, philosophy and psychology and avoided Bible Study as much as possible. In a marked and unexplained conversion from his earlier underachievement, at Furman he exhibited a compulsive ambition to do well in all subject areas. However, it was his stubbornness and fondness for Professor Gordon B. Moore which led him to the pursuit of psychology at the expense of the hard sciences, in which he did his best work. Moore, the first of many significant males for John, had recognized Watson's talent and challenged him to progress in the difficult subjects of psychology and philosophy. Watson found Moore's classes intellectually stimulating and he respected the man for his conspicuous eccentricity and religious liberalism.

Watson wrote that it was an adolescent resolve in response to an affront from Moore that pushed him into doing an A.M. year at Furman and eventually a Ph.D in psychology and philosophy.[4] The bizarre incident seems to conceal rather more that it explains. In a final examination in his senior year Watson handed his paper in backwards against the express, albeit eccentric, instructions of Moore who promised to fail any student who did so. For that Watson was not allowed to graduate that year even though he had done excellent work in other subjects. According to Watson, this was the stimulus which shaped his career for it caused him to defiantly prophecy that his teacher would someday come to him seeking assistance in research. Amazingly during his second year at Johns Hopkins Watson received a letter from Moore asking if he could come to him as a research student.[5]

It is doubtful that Watson could have forgotten the eccentric warning of the professor who meant more to him than any other. Cohen speculates about Watson's subconscious motives. Was his action an odd manifestation of frenetic anxiety usual for Watson at exam time but aggravated in this instance by the fear of being judged a failure by the man he admired? Was Watson challenging Moore to decide his future or, despite his great desire to be independent, was Watson not ready or unable to leave his mother and Greenville? Handing in the paper backward gave him another year at home: another year to deliberate - and an alibi for doing so. Paul Creelan suggests that it was a ploy to hold off disappointing his mother with the news that he did not intend to become a minister?[6] In spite of evidence that he had personally rejected the faith Watson was active with his mother in home mission and Christian educational work and was baptized an adult sanctified believer in 1899, the year of his graduation.[7] Or was it Moore himself that Watson was unable to leave? All we can be sure of is that, in describing the event simply as "some strange streak of luck"[8], Watson contradicted his own credo that all behavior could be explained through observation of the processes of environmental conditioning.

Upon completion of the extra year at Furman, Watson, now 21, received his M.A. but he was basically embittered by the experience. College, he said, killed vocational leanings and encouraged softness, laziness and the prolongation of infantile dependency.[9] Independence was very highly valued by Watson throughout his life. It was central to his notions of masculinity, happiness and marital adjustment. He greatly feared homosexuality and firmly believed that too great an attachment to parents, especially mothers, was the death knell of sexual adjustment and marital happiness.

Watson had to encounter social and sexual life at Furman in the absence of the kind of objective scientific life skills and sex education program which he later advocated for college students. He was shy, unsocial, had few friends and was conscious of the fact that his family lacked wealth, a tradition of being educated or even a respectable patriarch. However, physical attractiveness, determination and charm eased his way with women. Furman had three co-eds on campus and Watson confessed to having fallen for one of them. What progress he made with her we do not know with certainty.

Both Cohen and Watson's daughter Polly believe that evidence indicates he had a consummated affair before leaving Furman. Sex appears not to have shamed or frightened Watson, yet he would have to have kept his affairs very much in private for in Baptist Greenville spying out scandal was everyone's Christian duty. At Furman such behavior would have been grounds for immediate dismissal and it is easy to imagine the kind of problems a disclosure would have caused between Watson and his mother.

Following his graduation with an A.M. Watson remained in Greenville, perhaps to be near his mother whose health had been failing. He took a job far beneath his standing as a teacher in a one room private schoolhouse. The teaching position included board as part of its measly renumerative package so that Watson was able to live away from home for the first time. It appears that his church activity and his remaining in Greenville had been concessions to his mother for immediately upon her death in July of 1900 Watson permanently severed ties with the church and Greenville and made plans to continue his studies at a college of reputation.

The University of Chicago quickly won out as Watson's school of choice. Professor G.B. Moore had relocated there after being dismissed from Furman. He had written to Watson extolling John Dewey's work there. At the time Watson was leaning more in the direction of philosophy than psychology and the benefits of studying under a great name were not lost upon him. Shy, green, and insecure, Watson immediately fell under the wing of the psychologist James R. Angell whom he admired for his aristocratic ease and style. In spite of his great teachers and to his great consternation, Watson did not progress very well in philosophy. He wrote, "God knows I took enough philosophy to know something about it. But it wouldn't take hold."[10] Angell directed him to experimental psychology as a major with philosophy and neurology as minors. Under the joint supervision of Angell and H.H. Donaldson, Watson did his research on the correlation between increasing complexity of behavior and neurological changes in the white rat. He was very grateful to the two, not only for their academic supervision but for the badly needed opportunity to finance his studies by attending to their lab apparatus and animals.

It took Watson three years and three summers to complete his Ph.D. Partly out of insecurity and partly out of financial necessity, he worked unceasingly in the isolation of the laboratories. It was in those years, he felt, that he learned the intense - some would say compulsive - work habits that characterized his lifestyle. In the fall of 1902 Watson suffered a mental breakdown. The strain of his work, the anxiety of knowing that his germinating behaviorist point of view would be anathema to Angell and his jealousy and frustration over a Miss Vida Sutton, who had rejected his advances, were likely factors in its onset. The breakdown, which took the form of insomnia and depression, was one of the "best" experiences in his university course, he said. It taught him to "watch his step" and prepared him to accept a large part of Freud when he later became better acquainted with his works[11]-suggesting that the breakdown did have something to do with Watson's sexual adjustment. Cohen legitimately suggests that Watson may also have been disturbed by the knowledge that his developing behaviorist point of view represented a final rejection of the Baptist beliefs that his mother had held so dearly.[12] During his convalescence Watson was so bothered by his old fear of darkness that he had to sleep with a light on.

Watson stayed on at the University of Chicago, acting first as Angell's assistant for two years and then as an instructor. Having attempted to share his behaviorist ideas with Angell in 1904 and being curtly rebuffed, he diffidently towed the conservative line and kept his ideas to himself. Finally, as Johns Hopkins was making more lucrative offers, the University of Chicago appointed him Assistant Professor Elect. When Johns Hopkins countered with an offer of full professorship and a substantial financial raise, the debt-weary Watson, now a married man, reluctantly left his University of Chicago laboratory. He had wired the lab, built much of the apparatus himself and had to leave work in progress. Neither did he want to leave Angell. Angell's role as an intellectual mentor had diminished and Watson no longer dared to share his developing behaviorist ideas with him; still a bond existed between the two that was important to Watson.

The only negative experiences at Chicago which Watson recollected were being told by Dewey and Angell that his Ph.D examination was much inferior to that of a woman graduated two years earlier and being unable, for financial reasons, to complete a medical degree. His jealousy of the woman, he admitted, lasted a long time. He sought the medical degree, he says, not to practice medicine but "only as a means of working with medical men and to save me from a little of the insolence of the youthful and inferior members of that profession when I had to come in contact with them."[13] Watson's son James said of his father that not having a medical degree was a long-lasting source of bitterness and feelings of inferiority for him.[14]

In the Fall of 1908, at the unusually young age of 29, Watson assumed the chair of psychology at Johns Hopkins. With a new degree of independence and resources, he began with greater earnest to develop the behaviorist point of view which first occurred to him in Chicago. There, in revulsion toward having to serve as a subject in introspective exercises, he had decided that all that could be discovered through introspection could be found out by applying the method of objective detached observation which he used for animal experimentation to the study of human subjects. Notwithstanding his commitment to this fledgling theory, Watson had held himself in check because he hadn't the confidence yet to upset those men whose approval mattered most to him: Angell, the physiologist Yerkes, and his new and unlikely friend and intellectual advisor, the doyen of introspection, Bradford E. Titchener.

Watson's popularity as a professor grew and his ability to attract students drew the praise of the university president. He was further buoyed up by the fact that more psychologists were beginning to voice their discontent with the question of consciousness and the method of introspection. Watson had also begun to see through the veneer of his mentors through his work as secretary of a committee of the American Psychological Association organizing an international congress of psychologists. Witnessing the pettiness and politicking helped him to put their importance and his own into perspective.

In the early part of 1913 Watson finally felt confident enough to break his restraint. He made his behaviorist ideas public in a lecture series presented at Columbia University by the New York Branch of the American Psychological Association. The lecture, which has often since been referred to as his manifesto, was published in March of the same year in The Psychological Review as "Psychology as the Behaviorist Views It".[15] The initial reception of the article was not as dramatic as we might expect. Many respondents seemed not to believe that Watson was actually rejecting consciousness outright. To be sure Angell, Titchener and other well-known psychologists attacked Watson for being extremist; however, he was so pleased and excited to have his ideas debated now that he welcomed the comments. There were also qualified voices of support coming particularly from those already in favour of expanding the domain and methods of psychology from the limited confines of introspection. The debate didn't really heat up until the publication in 1919 of Psychology from the Standpoint of a Behaviorist, in which Watson attempted to make clear that he rejected the idea of mental life outright. In the meantime his research, now focusing increasingly on human behavior, was interrupted by service in the war.

In August of 1917 Watson was commissioned as a major in the Aviation Section of the Signal Corps. He was sent to Washington where he was put in charge of organizing and running aviation examination boards. He enjoyed this work at first and reminisces that it kept him busy day and night.[16] A change in superiors putting Watson under the command of a colonel whom he found egotistical and self-serving soon changed his attitude. Not surprisingly Watson, who had become something of an arrogant dandy with his rise in prominence as a psychologist, found it exceedingly difficult to accept subordination to such a man. After a series of largely barren assignments that took him to Texas and abroad, Watson returned to Washington and was transferred to the Aviation Medical Corps. He found his scientific work there to be of an "unsatisfactory nature". He was particularly struck by the incompetence, inferior intelligence and bad manners of most military men and, balking against the military chain of command, he found himself very nearly court-martialed. Watson described the whole army experience as a "nightmare".[17] Washington, on the other hand, seems to have been rather delightful as far as Watson's sex life was concerned. Casting doubt upon his claim to have been working night and day, the handsome and clever major, according to Cohen, charmed his way through a series of affairs and flirtations there.

Watson regarded sexual activity as a biological or physiological function; nevertheless, it was of particular importance to him both in his personal life and professional works. In his writings, sexuality, with an emphasis on gratification and performance, became a reoccurring theme. James Watson describes his father as a masculine man with a "Hemingway-like aura", who valued competency, bravery, manliness and the kinds of activities through which courage and personal capability could be demonstrated. But for all Watson's bravado and frequent talk of sex, Watson's son sensed that his father was fearful of inadequacy or impotency. He was overwhelmed by concern about homosexuality and strictly forbade the expression of tenderness or affection toward his children. The contempt that his father felt for the demonstration of affection toward children, says James, extended to his views on sex.[18]

> I honestly believe that Dad in many ways was simply incapable of understanding or receiving or perhaps even feeling love and affection in the normal sense. This wasn't part of him, but sex was....He thought people should live together and have sexual relations, but the marriage bond for all of its deeper significance and meaning should be avoided.[19]

Even on the plain of friendship, Watson's fierce anti-sentimentality was evident. He valued independence, non-involvement and emotional control and perhaps, in an effort to ensure that he could keep his emotional distance, Watson seemed to seek out relationships with persons of unequal status . With men he was most comfortable with mentors relating to them either with great deference or stubborn defiance. The women in Watson's life were ostensibly safely beneath him. Friendship does not even seem an appropriate word to describe his relationships with them: they were not friends; they were students, sexual partners, mothers and household managers. They were delightful or terrible and almost always, for Watson, they were trouble.

While still a student at the University of Chicago Watson had suffered the sting of rejection and jealousy at the hands of Vida Sutton. Resolved that Miss Sutton was interested in other men, Watson turned his attention to one of his students, Mary Ickes. In a letter describing his married life, Watson claims that it was his youthful foolishness and Southern heritage that prompted him to propose to Mary. Her plight, as dependent of a brother who furiously resented the debts she incurred away at college, prompted him to offer assistance and protection through marriage. According to Watson the two were secretly married on December 26, 1903.[20] Cohen, unaware of the letter in which Watson attempted to legitimize the events that led up to his eventual divorce, suggests that Watson had different motives: still unsure of himself and smarting from the pain of Miss Sutton's rejection Watson turned to a woman who was enthralled with him. Mary's adoring love offered security and a soothing balm for his ego. Connections to the well heeled Ickes family would also have been attractive to Watson who desired a place among those of social standing. Furthermore, Watson was ready to undergo the bonds of matrimony in order to enjoy the licit gratification of his considerable sexual appetite.

Mary 's brother Harold Ickes soon grew suspicious of Watson, says Cohen, and decided to send her away to live with an aunt in Altoona. By Watson's account Harold claimed that he could no longer afford to support Mary's education. Though no one writing about Watson seems to have considered the evidence before, to this writer it appears that the real reason for Mary's departure was to hide her pregnancy and save Watson's career! If Watson's son John was born in 1904 as Cohen and others have indicated, Mary's pregnancy would certainly have predated the Watsons' public marriage in October of 1904, and unless Watson made an unreported spring visit to Altoona the child must have been conceived before her departure in January and born near the date of the public marriage.[21] Disclosure of the intimate relations between Watson and a student would be ill-regarded by the university.

Hardly had Mary left when Vida Sutton returned, confessing that she had been wrong and did love Watson after all. According to Watson they carried on their relationship in a manner that was exemplary "from a legal standpoint"; however, in the fall they faced "the situation" and gave each other up. Mary was sent for and they were publicly wed. Watson claims that he had previously told Mary about his attachment to Miss Sutton but does not indicate whether she was made aware of what went on during her stay in Altoona. It must be kept in mind that these statements come from a letter that was intended to save Watson's academic career from ruin because of the affair which led to his second marriage! Whatever actually happened, Watson expressed the opinion that the Sutton affair got his marriage to Mary off to a shaky start. In a statement typical of Watson's pride in himself as the type of man who could gather himself up in any situation and grasp the future with vigour, he exclaimed; "Nevertheless, I buckled to and walked straight."[22]

Watson enjoyed being the head of a household and of children he declared to his friend Yerkes: "A baby is more fun to the square inch than all the rats and frogs in creation. Honest,".[23] Watson fathered two children, a son and a daughter, within the first three years of the marriage. Mary cared for the children and lent assistance to Watson in the way of proof-reading and editing his papers. Though Mary's love and adoration was not reciprocated by Watson, who did not invest himself emotionally, the pair had been getting along amiably and Watson was faithful for a time. In the summer of 1906, while studying the homing patterns of terns on the uninhabited Tortugas islands, Watson and Vida corresponded. Watson admits to having a lunch date with Miss Sutton after his return that fall but says that he did not conceal it from his wife. Mary disclosed the event to her brother who was suspicious of Watson's candor and put a detective on his trail. The detective reported that Watson was meeting Miss Sutton regularly in the Fine Arts building and Mary and her brother went to the president of the university with the story. An investigation which cleared Watson ensued and Harold was not gratified in his wish that Watson be fired and his sister divorced. Watson reports that the incident was heart breaking to him and that he "would gladly have welcomed a divorce"; however, he followed the counsel of Angell who insisted that the couple remain together.[24]

It is indicative of how oblivious Watson was to Mary's inner life that he wrote that so far as he knew things continued smoothly between them. Only in 1913 did he sense that something was wrong. While he was in New York delivering the lecture series which announced his behaviorist ideas, Watson somehow found out that Mary was socializing and drinking with what he called "a pretty reckless crowd" and that she had spent a weekend with a group of friends which included men. Watson claims not to have found out if her actions were innocent. For him the big shock that came of confronting her was learning that she had apparently never forgiven him for the last encounter with Vida Sutton. He writes, "She told me that on account of the previous difficulty she had become anaesthetic so far as I was concerned."[25] At Watson's suggestion Mary spent some time away thinking matters over. She came back to him and their marital life resumed, although again he felt that it would have been better had they separated then. The incident, he says, broke his pride, severely shook his interest in family life and stirred his interest in Freudian theory.

Cohen is quite convinced that Watson's fidelity broke down around this time. Whether his affairs preceded or were brought on by Mary's behavior is not known with certainty; however, Watson's behavior in the past weakens his defence considerably. Whatever actually occurred at that time Mary appears to have settled back into an attitude of resignation while Watson continued to take licence with his marital vows and drank increasingly.

In 1915 Mary underwent an emergency appendectomy followed by a painful womb suspension, which apparently diminished her interest in sex. Watson wrote to his friend Yerkes of his tender care for her during her illness yet even at his wife's bedside he was very much the detached scientist. He described her recovery as "more rapid . . . than any white rat I ever had to deal with."[26] The demise of her health awakened Watson to the realization that age and motherhood was exacting a toll on his wife. Though he was nearing 40, Watson fancied himself a man approaching his prime, whereas he began to regard Mary as having reached the end of her's. His career successes and exploits with women filled him a sense of youthful vitality and prowess that made his wife seem dull and inadequate.

By 1918, when Watson returned from service and the sexual adventures of Washington life, reunion with his wife was not nearly as stimulating to him as was getting back to his laboratory at the Phipps Psychiatric Clinic. Focusing now on the behavior of infants Watson proposed to chart their maturation and to discover what emotional responses are present in human young prior to the rapid conditioning or habit formations that he believed "slanted" the individual. In addition to this primary endeavor, Watson had managed to get backing for a project which would bring his interest in sex to the work place.

He had negotiated a government contract to study what effects sensational anti-VD films screened during the war years had on the behavior of the male audience. For Watson, who believed that sex was a most fundamental human drive and the subject of much social repression, the project ratified his then radical idea that direct and detailed research on sexual behavior was an important area for study. In July of 1919 he published what was to be the most important book of his career, Psychology From the Standpoint of a Behaviorist. Here, his conclusions about child development and sex became part of the most comprehensive statement of his theory to that date.

In the fall semester of 1919 Watson turned his attention to deliberately building fears and attachments into infants in order to determine if the conditioned reflex method might be used to explain how the simple manifestations of emotion in infants grows into the complexity of adult emotional life. Watson's new project fascinated him and the laboratory was made all the more exciting by the presence of Rosalie Rayner his new nineteen year old graduate research assistant. Her beauty and youthful effervescence quickly upset Watson's usual emotional restraint and within weeks they were much more than student and teacher. The effusive passion and sentimentality that poured out in Watson's letters to Rosalie revealed a hitherto carefully controlled part of his personality. Here was the mighty Watson in thrall to a woman less than half his age. He was playful, poetic and charming, open in his expression of passion, jealousy and fear of rejection. Soon the pair was lunching regularly in public and frequently sneaking off for romantic weekends in spite of the risks associated with such indiscretion. Mary began to fear that this affair was unlike the others she had tolerated.

Having rejected the good counsel of her brother Harold many years earlier, Mary now turned to her less upstanding brother John Ickes. He took her to a lawyer, who advised her to obtain evidence of Watson's unfaithfulness. Mary stepped up social contact with the distinguished Rayner family whom the Watson's had known before the affair began. On the occasion of a visit to the Rayner's home she found an opportunity to search Rosalie's room where she obtained a packet of incriminating love letters written by her husband. After her brother photocopied the letters Mary confronted her husband, Rosalie and the Rayners with the evidence in an attempt to see the affair ended. Rosalie rejected Mary's and her parent's wishes to see her go abroad and let the affair die and Mary rejected Watson's suggestion that she go to Switzerland and let the marriage die. By April of 1920 the Watsons were separated. Mary remained open to a reunion, avoided damaging John's reputation at the university and even returned the letters at some point. Rosalie and her parents embarked on some extended domestic travel and Watson carried on with work as usual. He was conscious that gossip was brewing yet arrogantly boasted to a confidante that he was too important an asset to the university to be fired. Privately he worried and held his letter of resignation in ready when he learned that John Ickes was unsuccessfully attempting to blackmail the Rayners with the photocopies of the love letters.[27]

Early in August Adolf Meyer, head of the Phipps Clinic, got wind of Watsons private troubles and demanded an explanation of his conduct. In Watson's apologia he states that it was Mary's lust for another man, her cutting and open mockery of their conjugal relations and his fear that the children might be harmed by the knowledge of their differences that led to their separation. His relations with Rosalie, he says, were not adulterous.

> The letters are genuine expressions of affection for Miss Rayner. I felt that I had the right to become fond of her. While no adultery charge is justified by them I am sure that if they were not rebutted she could get a divorce on such grounds. . . .[28]

Watson's belief that his marital frustrations gave him the "right" to love another woman was what really disturbed Meyer.[29] University professors, as community leaders, were expected to conduct themselves in an exemplary manner. The only way to save his career from ruin, suggested Meyer, would be to keep Rosalie away for a number of years, concentrate on his work and prove by his conduct that he had developed binding moral principles. Watson replied that he was willing to abide by the plan in order to keep his position but sometime in September Meyer came to the conclusion that Watson would not let go of Rosalie and that public scandal was inevitable. He went to the university president with the letter from Watson and it was decided on September 29th that the psychologist's dismissal was necessary in order to save the reputation of the university and safeguard the morals of its students.[30]

Watson did not waver in his belief that he had done nothing wrong. He was bitterly disappointed that his colleagues did not support him but understood the position of the university. He moved to New York and quickly secured a job with the advertising firm of J. Walter Thompson Company. Watson applied himself with characteristic vigour and charm and within four years had ascended through the ranks to the vice-presidency of the agency. The standpoint of the behaviorist with its emphasis on prediction and control of human behavior meshed exquisitely with the aims of advertisers as they rushed to cash in on the burgeoning consumer economy of the twenties.

Leaving Johns Hopkins was not the end of intellectual activity for Watson. He continued to lecture at the New School of Social Research and the Cooper Institute and acted as a consultant to Mary Cover Jones in a study on the elimination of children's fears. He published Behaviorism(1925, revised edition 1930); The Ways of Behaviorism (1928); the highly successful and controversial Psychological Care of Infant and Child, which he co-wrote with Rosalie, and a great many articles in scientific periodicals and popular magazines. Debate on behaviorism and the drawing of sides reached its zenith in the twenties and the polemically inclined Watson, now free from the tempering influence of university constraints, stridently defended his extremist position and became unbridled in his optimism about the predictive potential of the science of behavior.

Watson had reason to feel optimistic in the twenties. His divorce was completed by the close of 1920 and he was married to Rosalie early in the new year. As an advertising man he was enormously successful and made more money than he could ever have dreamed of as an academic. The termination of university work and what he perceived as abandonment by his colleagues was keenly felt by Watson. He was to continue pining after the kind of research work which would dazzle the scientific community and silence the nay-sayers. Nevertheless, the loss of his first love was compensated, in large part, by union with a woman who had the power to satisfy him sexually. Rosalie was enthusiastic about Watson's theories and proud of his intellectual accomplishments. Fun-loving and very socially inclined she persuaded Watson to overcome his shyness enough to accompany her to parties and the theater though he never developed a taste for either. She deprecatingly described herself as a poor behaviorist because she liked breaking rules once in a while and liked "being merry and gay and having the giggles."[31] It is very doubtful that the behaviorist objected. Her youthful presence seemed to be welcomed as a revitalizing force by the emotionally detached and one dimensional Watson. For him sexual relations, good technique and the mutual satisfaction of the partners were the essentials of marital happiness. Watson felt that the large difference in their ages was appropriate: he, in his prime, should have a wife in her prime.

The advent of children, two sons, born in 1921 and 1924 respectively, was another source of youthful renewal for Watson. This second family gave Watson and his trained assistant Rosalie (she had been at Watson's side throughout the famous Little Albert experiment) the opportunity to practice the behaviorist principals of child-rearing.[32] Rosalie described herself as a behaviorist in the making and given to some resentments with respect to strict behaviorism being practiced in their home and particularly to too much exclusion of the children from the parents.

> My regrets are perhaps more for the sophisticated life we urbans lead than anything else. I wonder how many parents eat their evening meal at a reasonable hour with the children, light the fire afterwards and have at least a social hour or half-hour together? In our family we do this on birthdays and holidays. The result is that the occasion so excites the children that the whole family becomes emotionally exhausted and very grateful when bedtime arrives.[33]

"On the side of behaviorism," she said, "I am unanimously in favor of breaking the mother attachment as early as possible - or, better still not allowing it to grow up."[34]

Behaviorist principles obviously dominated over Rosalie's sentiments about spending time with the children. The Watsons kept a very busy social schedule and rarely took meals with their children. They began sending them away while they were pre-schoolers. Summer camp was a regular event and during the winter the boys spent all of every week-end at a club in the country where the children participated in the rugged types of activity Watson felt appropriate for boys.[35] Rosalie agreed with Watson's belief that responsibility for the care of infant and child rests with mothers and that judgements about the rearing of children must fall ultimately upon them. Perhaps it was the weight of judgement that caused her to admit finding it hard to be both mother and wife at the same moment even though the children were seldom with her and she had the assistance of a full time nurse and maid from the time her elder son, Billy, was two.[36]

Rosalie and Watson recorded developmental observations of their children at home and on occasion they tried little experiments upon the boys. Together they wrote The Psychological Care of Infant and Child based on their experiences and experimentation with their own children as well as the work they had done at Johns Hopkins. According to James B. Watson, the younger of Watson and Rosalie's sons, the prescriptions of Psychological Care of Infant and Child were followed carefully in his home by both parents.

> He [Watson] was very rigid in carrying out his fundamental philosophies as a behaviorist. We were never kissed or held as children; we were never shown any kind of emotional closeness. It was absolutely verboten in the family....I never tried (nor did my brother Billy) to ever get close to our parents physically because we both knew it was taboo.
>
> I don't think my mother completely agreed with my father's teaching, but there is considerable evidence that she was strongly influenced by it because there wasn't any petting when he wasn't looking. Although she has referred, in some of the articles I have read, to bootlegging affection for her children, I don't remember it happening. I think that she was very cautious and probably a good student of Dad's, and therefore she controlled any motherly instincts she may have had.[37]

Watson believed that of the pair he was better able to maintain the behaviorist program with the children. For this reason, he mused, if death struck one of them down while the children were still young it would be best if it were Rosalie. Fate obliged him in 1936 when Rosalie tragically died from dysentery. Watson's reaction is perhaps the most poignant revelation of the man behind the behaviorist. During her illness he took time from his very busy schedule to be with her daily. The anathema of demonstrative emotion dissipated as it became evident that Rosalie was losing the fight to live. She held her frightened son's hands and when she died Watson embraced his children and cried. He awkwardly attempted to be kind and affectionate with his sons, though by James's recollection his father was very confused by the death and didn't know how to handle children.[38] Watson asked his secretary, whom he'd known since his early days with J. Walter Thompson, to come live in his house and assist him with the boys who would now live with their father on holidays only. Since the children were seldom at home, it is probable that Ruth Lieb was also charged with management of domestic affairs. Besides being fully employed as vice-president of a large advertising agency, Watson was not the type to assume the dusting, laundry and shopping!

Watson withdrew into himself and a severe and lengthy depression. Shunning his own advice to others on beating melancholy, he did not escape to a new place or bury himself in work. He finally dropped his waning attempts to keep up with the field of psychology and speak to the world as a psychologist - goals previously so important to him that the unlikelihood of their realization had sent him into serious depression a few years earlier. He brooded and drank heavily.

Watson remained withdrawn and was frequently depressed, yet he was popular and desirable among women. The great care which he had always shown in his appearance grew to fastidiousness and he cut a fine figure for a man approaching his sixties. While no one was to replace Rosalie, Watson held to his beliefs about the importance of sex and eventually resumed having noncommittal affairs. Three years after his retirement at the age of 69, Watson sold his farm estate in Newport and moved into the home of a Miss Ayman of Woodberry Connecticut. Cohen does not elaborate upon the nature of the relationship except to say that Watson lived out his remaining days quietly, puttering about her house and garden unbothered by the "slightly odd arrangement".

Watson was not dependent upon or even close to his family and friends in the usual sense yet retaining contact with them was important to him. He saw his children and grandchildren whenever possible and continued to see a good deal of Ruth Lieb, who still handled his correspondence. Interest in Watson and his ideas began to resurface in the academic world in the late fifties and to his pleasure in 1957 he was awarded a gold medal by the American Psychological Association for initiating a "revolution in psychological thought . . . the point of departure for continuing lines of fruitful research".[39]

Watson could not bring himself to accept in person the honor bestowed upon him by the psychological community which had avoided association with him for so long. The men of science with whom Watson had worked and most admired had not been loyal to him and this had caused him great bitterness and sadness over the years. Ironically the man who revelled in the male world of science, who campaigned vociferously against close family ties and trivialized the role of women in society spent the remainder of his life in the society of women and his children. Watson died in 1958 at the age of eighty.

Watson's expression of his beliefs that he had been too close to his mother and that his fundamentalist black nurse had put the fear of darkness into him have too often echoed through the pages of history as if they were the pivotal events that explain the behaviorist's bias against women, mother-love and emotion. While it is significant that Watson felt he was too close to his mother and that the Baptist pedagogy of his nurse contributed to a lifelong phobia, we really know too little of Watson's relationship with these women to accept such an explanation as adequate. To settle blame upon the women who raised him would be to ignore the anti-feminine and anti-sentimental social biases of his time as well as the many traumatic experiences of Watson's life, which taken together, must have convinced him of the pain and ultimate futility of emotional investment.

Watson's lashing out at mothers was indeed extreme; however, blaming them for the maladjustments of the race was not without precedent nor was his homophobia and objectification of women as sexual playthings or housemaids. Watson came of age in a period when American males were experiencing a crucial identity crisis. Raised in families dominated by Victorian mothers who had committed themselves to their designated mission of safeguarding children and home against the corrupting influences of the world, they were threatened by the specter of the effeminizing of male children in a society which valued virile muscular action, competitiveness and unemotional practicality. Americans believed that their superiority depended on male acceptance of the work ethic as their ethos. How could home-oriented, sentimental and morally sensitive women raise sons fit for the competitive world of industry and commerce of which they knew so little? The sexual awakening and increasing movement of middle-class women into the workforce in the first decades of the century were clearly not perceived as an acceptable solution but as another assault on man's world, his homelife and identity. By the 1920's when Watson published his Psychological Care of Infant and Child the concept of educated motherhood had given way to a new ideal of womanhood for the middle-classes designed to minimize feminine interference in the masculine world. With their maternal expertise usurped by a growing body of authoritative scientific experts these women were now advised to channel their energy into becoming pleasing sexual companions and homemakers for their work weary husbands.

By virtue of its association with the feminine sphere as well as a faltering theological world view, emotion or sentimentality was rejected by masculinity conscious males of Watson's age who looked now to science as the proper grounding for discussion of moral and existential questions. For him such rejection of emotion was compounded by many unfortunate and psychologically scarring experiences in his life. He grew up in a home full of conflict. The father he loved brought shame upon the family by rejecting the strict morals of his community and wife, and finally abandoning them. His beloved mother and mainstay of the family died before he was able to establish his independence. Even while she lived, it is possible that John was unsure of her love which by the standards of fundamentalist pedagogy would have been withdrawn whenever necessary as a sanction against bad behavior. We know that as a young adult he felt it necessary to conceal his conflict with her religion. We might reasonably assume that Watson felt some emotional attachment toward his siblings and of these we know that Watson was disapproved of by his eldest brother, and that the other died at the age of twenty. We have no idea what his relationship with his sister was. All that we can be certain of is that the Watson who emerged from Greenville determinedly rejecting the affective life had had many experiences supportive of the conviction that the cost of living a full emotional life was dear and the divdends few. Determination and the theoretical reduction of the affective realm to mechanistic physiological responses did not protect the adult Watson from occasionally losing the tight grip which he had placed on his emotions. Pride, feelings of inferiority, disappointment, jealousy, lust, passion, and impetuosity, confirmed him in his conclusion that sentiment ought not to be cultivated but be carefully controlled or exorcised for the good of mankind.

Throughout his adult life Watson sought well-being through a protective wall of machismo, independence, detachment and the objective viewpoint of science. The heuristic of his work as a psychologist was as much the experiences of his own life as it was the animal laboratory. As if in self-vindication he sought to scientifically prove that dependency, emotional attachment and metaphysical thinking were simply bad habits learned from the unfortuitous arrangement of the environment, especially in the formative years of childhood, rather than integral, though sometimes painful, aspects of being human. Ideally Watson would have removed children from the maternal domain of the home and placed them under the care of trained scientific experts; however, resigning to the fact that women would continue to be the primary organizers of children's environment, he strove to save the child from what he felt to be the cause of his own inhibitions, that "pernicious" evil - mother love. By directing the perverted sex-seeking response of women from the destructive masquerade of motherly affection toward its true end, Watson felt that relations between men and women would be improved and behavioristically raised (male) children would at last be free to conquer the world and usher in the new and unimaginably wonderful universe of behavioristic freedom.

FOOTNOTES

1. Lucille Terese Birnbaum, "John Broadus Watson and American Social Thought, 1913-1933" (Ph.D. diss., University of California, 1964), 15.

2. Unless indicated otherwise the biographical information for this chapter comes from David Cohen, J.B. Watson: The Founder of Behaviorism (London: Routeledge and Kegan Paul Ltd., 1979).

3. Watson had two older brothers and a sister. The eldest brother Edward was something of a religious prig and disapproved of John. Thomas Stradley died at the age of twenty and information is wanting on Mary Alice his sister. Cohen, 6,11,13.

4. John B. Watson, "John Broadus Watson," in A History of Psychology in Autobiography, ed. Carl Murchison (Worcester: Clark University Press,1936), 3:272.

5. Ibid.

6. Paul G. Creelan, "Watsonian Behaviorism and the Calvinist conscience," Journal of the History of the Behavioral Sciences 10 (1974): 100. Lucille Birnbaum mentions that Watson had taken an early vow to his mother that he would become a minister, however, this is not mentioned by Cohen or other scholars doing subsequent work on Watson. Birnbaum, 15.

7. Birnbaum, 24.

8. John B. Watson, "John Broadus," 272.

9. Ibid.

10. Ibid., 274.

11. Ibid.

12. Paul Creelan, who argues that the breakdown had to do with Watson's rejection of the fundamentalist identity of his childhood, goes even further to suggest that animal research would have been antithetical to the moral-religious strictures against involvement with the

flesh and that the rat in particular symbolized the unregenerate flesh of children in the tradition of American Puritanism. Creelan, "Watsonian Behaviorism", 102.

13. John B. Watson, "John Broadus," 275.

14. Mufid J. Hannush, "John B. Watson Remembered: An Interview with James B. Watson," _The Journal of the History of the Behavioral Sciences_ 23 (April 1987): 146.

15. Ruth Leys advances the argument that Watson's manifesto, which defined general psychology as the objective study of all behaviors, by offering a methodological solution to the questionable status of psychology as a science, was an act of professional imperialism deliberately aimed at consolidating his own position in the psychological community. Given the biographical data on Watson this does not seem tenable. The position of Winkler and Bromberg: that such a suggestion originated with Watson's critics, perhaps out of jealousy over the substantive position Watson gained through his leadership of a psychological movement, seems more likely. Ruth Leys, "Meyer, Watson, and the Dangers of Behaviorism," _Journal of the History of the Behavioral Sciences_ 20 (April 1984): 133. John K. Winkler and Walter Bromberg, "Watson the Iconoclast," _The Mind Explorers_ (New York: Reynal and Hitchcock Inc., 1939), 290.

16. John B. Watson, "John Broadus," 277.

17. Ibid., 278.

18. Hannush, "John B. Watson," 137,145.

19. Ibid., 147.

20. John B. Watson, to Adolf Meyer 13 August 1920, Transcription in the hand of J.B. Watson, Adolf Meyer Archive, Alan Mason Chesney Archives: Johns Hopkins Medical Institutions, Baltimore.

21. Neither Cohen nor Clarence J. Karier who had access to Watson's letter, have considered the evidence in this light. Karier says that John junior was born in 1904 _after_ the marriage of John and Mary. He cites only Watson's 1920 letter which says nothing of the pregnancy or birth leading one to wonder if the birthdate was confirmed or assumed. Watson is known to have fabricated misinformation in other instances in order to promote himself to university administration. In the absence of

evidence corroborating Watson's letter one cannot help but consider the possibilities that the secret marriage was shotgun, or that it might not have actually taken place. John B. Watson, Letter to Meyer, 1. Clarence J. Karier, "J. B. Watson [1878-1958] The Image Maker," chap. in Scientists of the Mind Intellectual Founders of Modern Psychology, (Chicago: University of Illinois Press, 1968).

22. John B. Watson, Letter to Meyer, 1.

23. J. B. Watson quoted in Cohen, 38.

24. John B. Watson, Letter to Meyer, 2.

25. Ibid.

26. Cohen, 100.

27. John B. Watson, Letter to Meyer, 3.

28. Ibid., 4.

29. Ruth Leys, "Meyer, Watson," 143.

30. Ibid., 144-45.

31. Rosalie Rayner Watson, "I am the Mother of a Behaviorist's Sons," Parent's Magazine 5, no.12 (December 1930): 67.

32. Though Watson claims to have tried to condition his first set of children healthfully - meaning independent and unfixated, their behaviorist upbringing seems to have been confined to an emphasis on doing practical activities together and the avoidance of physical affection. Kenneth MacGowan, "The Adventure of the Behaviorist," The New Yorker 4 (October 6 1928): 30. Cohen, 89-90.

33. Rosalie Rayner Watson, "I am the Mother," 18.

34. Ibid., 16.

35. Ibid., 16-17.

36. Ibid., 18.

37. Hannush, "John B. Watson," 137-38.

38. Ibid., 138.

39. American Psychological Association quoted in Cohen, 280.

CHAPTER III

WATSON'S SCIENCE OF HUMAN BEHAVIORISM

As a student at the University of Chicago Watson quickly determined that he would be well advised to pursue studies in animal psychology. He was confounded by philosophy and uncomfortable with the introspective exercises which were a required part of human psychology courses.

> I never wanted to use human subjects. I hated to serve as a subject. I didn't like the stuffy, artificial instructions given to subjects. I always was uncomfortable and acted unnaturally. With animals I was at home. I felt that, in studying them, I was keeping close to biology with my feet on the ground.[1]

After twelve years of animal research Watson publicly espoused a system of thought in which the methods of natural science were considered to be necessary and wholly adequate for the study of human psychology. Beginning with a reductive view of human nature, which facilitated the inference that human learning took place in the same way as animal learning, Watson dispensed with the subjective involvement and metaphysical notions underlying older methods of human psychology. His radical materialist philosophy was generally rejected by his colleagues; however, his reconceptualization of the field of psychology as a purely objective science with practical applications placed him at the center of a growing methodological debate within the profession and secured him a place in history.

As a direct outgrowth of his work with animals, Watson became thoroughly convinced of the materialist nature of man. For his doctoral research Watson had studied rat learning. His intention was to refute the work of the physiologist Flechsig, who had suggested that brain medulations were the necessary condition for the formation of associations, the substratum of all human experience, knowledge, language, sentiments, and morals. Flechsig believed that medulation was absent in rodents and increasingly present up the mammalian scale. Watson easily succeeded in demonstrating that associative learning in rats is not dependent upon brain medulation, thereby overturning Flechsig's account of the fundamental distinction between the learning patterns of higher and lower forms of mammalian life. Stepping beyond the factual data of his experimental work, Watson went on to make many unproven and unwarranted analogies between his rats and human beings, the primary one being that the associative learning process which he had observed in the rats was the basis of learning throughout the evolutionary scale right up to man.

In post-doctoral research Watson pursued his interest in learning. The problems which he set for his animal subjects, such as the running of mazes, he said, required the learning of "habits". He was careful to emphasize that by habits he meant new forms of adjustments to the environment. It was apparent to him that the formation of habits, which he defined as "a complex system of reflexes which function in a serial order when the organism is confronted by certain stimuli,"[2] begins in the very first moments of life. In a series of exacting experiments which came to serve as the first model of well controlled animal research in the field of animal learning, Watson sought to locate the actual mechanism which the rat used in this habit formation or learning. He blinded, deafened, anesthetized, dewhiskered and rendered rats anosmic in an effort to discover which of their senses was necessary for learning to run complicated mazes. None of these disabilities impaired learning in the rats. Finally in order to focus on the role of their kinesthetic sensations, Watson successfully attempted to confuse the rats by giving them new mazes with longer or shorter alleyways than the ones they had learned on. He concluded that the rats learned through the "interorganic sensations" of their body muscles and surmised that humans must do so as well.

When Watson finally gave voice to his behaviorist theory in the 1913 article Psychology as the Behaviorist

Views It, he declared, "The behaviorist, in his efforts to get a unitary scheme of animal response, recognizes no dividing line between man and brute."[3] However, by 1914 he had conceded that "language habits" did differentiate man from brute. This difference between man and animals, he explained, was chiefly due to the structural deficiency in the speech mechanisms (ie: skeletal muscles and delicacy of receptors) of animals - not in man's ability to form language habits. Immediately thereafter he warned of the possibility of overrating these differences.[4] To Watson the human being, though more complex, was still an animal: a physiological reactive mechanism whose learning processes were essentially the same as the rat's.[5]

Watson insisted that both animals and humans ought to be studied with the same objective detachment accorded objects. Psychology as a discipline had not yet established itself as an undisputed natural science and would not , he felt, as long as it looked to the elements of mind and the nature of consciousness as its content, and relied upon the subjective technique of introspection for its method. Structuralism had been concerned solely with analyzing conscious states into introspectively isolable elements. Functional psychology, even though it emphasized the biological significance of conscious processes, retained the method of introspection and, therefore, according to Watson, did no more than its precursor to dispel the belief that psychology was an esoteric discipline. Since no behaviorist engaged in the objective study of man had ever observed anything that he could call consciousness, sensation, perception, imagery, or will, Watson argued that such mental processes and the terms used to describe them could be dropped out of the description of man's activity.

In the laboratory Watson had learned to control the behavior of animals by manipulating their environment. Awareness of the conditions of the environment, he realized, allowed him to predict their behavior. Watson recognized the scientific value of his data, despite the fact that it did not lend itself to interpretation in terms of consciousness. At that time experimental data was valued only inasmuch as it was believed to further the analysis of the complex mental states of consciousness. This forced students of behavior into the position of having to interpret their results by analogical or indirect reference to possible mental processes. Watson was embarrassed by the evident skepticism regarding the bearing of animal work upon human psychology. He was convinced of the importance of his own work on animal learning which indicated to him that all questions about learning were vitally concerned with behavior. The need for assumptions about consciousness, he felt, was seriously in doubt as situation and response became the keynote for understanding learning. The persistence of these assumptions, he went on to explain, was due to their connection with an outdated world view.

> The behaviorist draws the inference that such terms have been left in the older psychology because this older psychology, which began with Wundt, grew out of philosophy and philosophy out of religion. In other words, these terms were used because all psychology up to the time of behaviorism was vitalistic. Consciousness and its subdivisions are, therefore, merely terms which allow psychology to keep in, but in disguised form, the old religious term "soul".[6]

Watson argued that the proper subject matter of human psychology is the total behavior of man from infancy to death. In 1913 when he first brought his views before the public he stated:

> Psychology as the behaviorist views it is a purely objective experimental branch of natural science. Its theoretical goal is the prediction and control of behavior. Introspection forms no essential part of its methods, nor is the scientific value of its data dependent upon the readiness with which they lend themselves to interpretation in terms of consciousness.[7]

For Watson the really important thing was not discussion of man's mental machinery but understanding the human being's way of shaping his responses to meet the problems of his environment and showing the similarities and differences between man's methods and those of other animals. Society and social institutions, he noted, had long been based upon the general belief that human action is predictable and manipulable through the arrangement of the environment. For example, a society preserves its traditional order by holding out rewards for those who will act in ways that are considered good and desirable. The astute social observer seeks to determine what situations give rise to desirable behaviors in order to reproduce that behavior at another time. The behaviorist's task is to utilize the controlled conditions of science in order to refine the observation of stimuli and responses which continually go on at this casual level. If psychology would follow this plan, he suggested,

> the educator, the physician, the jurist and the business man could utilize our data in a practical way, as soon as we are able, experimentally, to obtain them. Those who have occasion to apply psychological principles practically would find no need to complain as they do at the present time.[8]

Watson proposed to build up a psychology that would take as its starting points the observable facts that,

> man and animal alike, do adjust themselves to their environment by means of hereditary and habit equipments. . . . [And] that certain stimuli lead the organisms to make the responses. In a system of psychology completely worked out, given the response the stimuli can be predicted: given the stimuli the response can be predicted.[9]

Watson recognized that the current ideas about cognition and affection represented major obstacles to acceptance of his theory. Structuralists and functionalists both maintained that thought goes on in terms of "centrally aroused sensations" or "images" that are accessible only through the method of introspection. Affection, or affective processes, were also generally accepted as a mental process distinct from cognition. Watson's theory depended on the objective observability of thought and affect. In order to clear the way for a free passage from structuralism to behaviorism he made the rejection of centrally initiated processes a principal contention of his thesis. He separated behavior into the categories of explicit behavior, that which is plainly and directly observable, and implicit behavior, that which is not plainly observable. He postulated that though none was known at the time, ". . . there exists or ought to exist a method of observing implicit behavior."[10]

Watson favoured the idea that implicit motor reactions occurring in the larynx account for most of the phenomena of implicit behavior.

> The larynx, I believe, is the seat of most of the phenomena. If its movements could be adequately portrayed we should obtain a record similar in character to that of the phonogram.
>
> . . . If implicit behavior can be shown to consist of nothing but word movements (or expressive movements of the word-type) the behavior of the human being as a whole is as open to objective observation and control as is the behavior of the lowest organism.[11]

He did not mean to suggest that thinking was simply subvocal talking, though his frequent vascillations and simplified popularizations of his theory often gave this impression. Rather, Watson believed that, while thinking behavior was performed by the whole bodily musculature, the vocal mechanism becomes more and more important ontogenetically.[12]

> The environment in the widest sense forces the formation of habits. These are exhibited first in the organs which are most mobile. . . . After such general bodily habits are well under way, speech habits begin. . . . Furthermore, as language habits become more and more complex there arise associations (neural) between words and act. Behavior then takes on refinement: short cuts are formed and finally words come to be, on occasion, substituted for acts. That is, a stimulus which, in early stages, would produce an act . . . now produces merely a spoken word or a mere movement of the larynx (or of some other expressive organ).[13]

As for affection, Watson admitted that it was essential to his position that it be reducible to sense processes. As early as 1913 he advanced the theory that affection is an organic sensory response. The sense processes which go by the name of affection, he said, are mediated by enteroceptors and fall into one of two well-marked groups -pleasant and unpleasant- one of which is always present acting as a personal evaluator of experience. Watson rejected the introspectionists' assumption that these processes are never clear and therefore inaccessible to the kind of observation afforded by objects which arouse the exteroceptors. Apparently blind to the fact that he too was engaged in the construction of a theoretical defense of his own assumptions, he accused them of taking such a view in order to preserve the differentiation between sensation and affection which upholds the stronghold of image and introspection . He conceded that the observation of affective processes would at times be extremely difficult because of their obscurity but, once again, he had full confidence that the methods had only to be uncovered.

Watson felt that it was quite probable that the mechanism involved in the sense processes of affective response are glandular and have a sexual reference.

> Since my first study of the [Freudian] movement I have been rather surprised that no one has connected pleasantness with the activity of the receptors stimulated by tumescence and unpleasantness with those stimulated by a shrinkage of the sex organs.[8]
>
> ---
>
> [8] . . . It is even more probable that the mechanism is glandular; that very slight increase in the secretion products gives us the one group [pleasantness]; checking, or decreasing the secretion, probably the other [unpleasantness]. . . .[14]

While he was careful to stipulate that in his view the "sex function" extends beyond the sex organs proper to a much broader zone of erogenous areas widely distributed throughout the body surface, he nonetheless felt that the way to objective investigation of the affective processes might be opened if plethysmograms were taken from the sex organs. Even if others were unconvinced, he was ready to admit that the affective realms such as love, the esthetic, artistic and religious sides of life, are at bottom sexual.

Watson was undeterred by the fact that his methods were as yet inadequate for the investigation of the more complex forms of behavior such as thinking, the affective, imagination, judgment, reasoning and conception. To him all were within the scope of behaviorist psychology. He believed that in time, with more experimentation and better developed methods, their analysis would be entirely possible.

> Regardless of how complicated the stimulus-response relationships may be, the behaviorist does not admit for a moment that any human reactions cannot be described in such terms.
>
> The general goal of behaviorism then is to so amass observations upon human behavior that in any case, given the stimulus (or better situation), the behaviorist can predict in advance what the response will be; or given the response, he will be able to state what the situation is calling out the reaction. Looked at in this broad way, it is easy to see that behaviorism is far away from its goal. While its problems may be difficult, they are not insuperable.[15]

Watson's first step toward achieving behaviorism's goal was to investigate the interplay of heredity and environment in the constitution of human behavior. Turning to the study of the human young he sought to determine what an individual can do instinctively, what he can be trained to do, and by what method he could most expeditiously be lead to a healthy adjustment within his environment. By consistently observing a group of infants during their first thirty days of life and a smaller number of children through their first years of childhood, Watson was able to draw up a set of what he called "rough facts" on unlearned responses. Those apparent at birth or soon thereafter, he said, proceeded from the basic human structure and included nearly all of the so-called clinical neurological signs or reflexes such as the reaction of the pupil to light, circulatory phenomena, digestion and many basic body movements. He was less exact about activities appearing at a later stage such as blinking, reaching, handling, handedness, crawling, standing, sitting up, walking, running, and jumping. He felt that they were probably primarily due to growth changes in structure and partly upon training. Watson acknowledged that observations upon the subject were still inadequate; nonetheless, he quipped that the behaviorist could not be accused of going beyond natural science in his inferences.[16]

Most significant among Watson's inferences was that, because nothing on his list of unlearned responses corresponded with what psychologists and biologists were in the habit of calling instincts, the concept of instinct was therefore useless in the field of human psychology.

> There are then for us no instincts - we no longer need the term in psychology. Everything we have been in the habit of calling an "instinct" today is a

> result largely of training - belonging to man's learned behavior.[17]
>
> The infant is a graduate student in the subject of learned responses (he is multitudinously conditioned) by the time behavior such as [William] James describes- imitation, rivalry, cleanliness and the other forms he lists - can be observed.
>
> Actual observation thus makes it impossible for us any longer to entertain the concept of instinct.[18]

Corollary to his denial of the existence of human instincts and his emphasis on associationistic learning Watson came to espouse his extreme environmentalist position. He concluded that there is no inheritance of capacity, talent, temperament, mental constitution or characteristics. Regardless of genetic background, period in history and geographical location, people are born with the same basic structure and set of responses - small variations being possible only as a consequence of minor physical structural variations. All else in the performance of the adult can be accounted for by training - particularly that which takes place in the earliest years of life. While admitting that in doing so he was going beyond his facts, Watson nonetheless proclaimed with confidence:

> Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select - doctor, lawyer, artist, merchant-chief and , yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations and race of his ancestors.[19]

A truly objective formulation of personality, according to Watson, necessitates that human life be regarded as a ceaseless stream of activity beginning with conception and growing ever more complex.

> Personality is the sum of activities that can be discovered by actual observation of behavior over a long enough time to give reliable information. In other words, personality is but the end product of our habit systems. Our procedure in studying personality is the making and plotting of a cross section of the activity stream.[20]

From such a description of personality, he said, it should be clear that the environment perpetually dominates us, determining which of our habit systems ~~will~~ be released in a particular situation. He identified three habit systems which dominate our behavior and determine our personalities: the manual, laryngeal, and visceral, by which he meant that which we generally call emotional. The awesome quantity of writing on psychology of the emotions, he said, was comparable only to the amount of work done on the subject of instincts and was equally disappointing to the behaviorist. He fulminated that equanimity was impossible for him in the face of the widespread acceptance and teaching of William James' theory that emotions are a state of consciousness accessible through introspection. His work with the infants had confirmed him in his belief that the problems of emotion could be simplified and dealt with using objective methods.

Even though he found his three year old subjects "shot through" with emotional reactions Watson's work with infants led him to believe that the emotional reactions which can be called out at birth are quite simple and that the stimuli which call them out are few. While testing the sensitivity of infants to loud noises Watson had observed physical responses such as the catching of breath, clenching of fists and erratic body movements, which he interpreted as the roots of fear. The same responses were called out when the babies were dropped into the arms of an assistant. Watson concluded that babies are innately afraid of loud noises and the sudden loss of physical support. The necessity of constraining the infants in order to perform certain of the experiments occasioned reactions of screaming, holding of the breath, body stiffening and slashing movements very similar to those which he classified as fear. These he interpreted as rage in response to the hampering of movement. Watson's observation of another group of emotional reactions, which he called "love", were incidental rather than directly experimental as social convention simply would not allow him to test his theory that love responses were basically physiological reactions to sensual stimulation. Stroking of the skin, tickling, gently rocking and patting, as well as stimulation of obvious erogenous zones, he said, were the origins of responses commonly known as love, affection, good nature, kindliness and sexual attraction no less than they were the cause of improved mood, smiling, cooing, gurgling, laughter and its attendant bodily motions which he observed in infants. Struck by the "simplicity" of these responses and the apparent "absence" of others, he believed that until any others could be proven to be present at birth the fundamental unlearned emotional reactions could be grouped under the three general divisions of fear, rage and love. These formed the nucleus out of which all future emotional reactions proceeded.

Next Watson turned to explaining how it is that human emotional life becomes so very complex. His study of a group of six or seven children who had been reared in the near total isolation of the hospital revealed the absence of fears other than to the stimuli described above. It was nonetheless obvious that people do become afraid of many objects, places and persons; that the numbers of objects and situations calling out fear as well as rage and love increases enormously. He asked, "How can objects which at first do not call out emotions come later to call them out and thus enormously increase the richness as well as the dangers of our emotional life?"[21]

For some time Watson had felt that the conditioned reflex method, discovered by Pawlow(sic) and used in human studies by Bechterew(sic) and K.S. Lashley, was critical to the understanding of human learning and that it held the potential to demonstrate how emotions could be attached and detached from situations at the will of the scientist. In laboratory settings scientists had successfully shown that, after establishing a fundamental stimulus which will call out a particular response, repeated simultaneous presentation of a second stimulus along with the fundamental stimulus soon resulted in the capacity of the second stimulus to call out the response independently. The method had been proven effective in the conditioning of lower animal and human motor and salivary responses. Watson speculated that it was probable that all human glands become conditioned by environmental stimuli and hence entire emotional reactions as well. If this were indeed the case, he thought, the contrast between the simple manifestations of emotion in infants and the complexity of adult emotional life might be adequately accounted for.

Watson's desire to deliver the study of human emotions from what he perceived to be a backward state superceded his apparent reticence about applying the method in his infant study laboratory.[22] In what was to become his most famous (or infamous!) experiment, he undertook to build up fears in an eleven month old infant and later to study the practical methods by which they might be removed. After establishing to his satisfaction that the infant, known in the laboratory as Albert B., exhibited fear only at the sound of loud noise and the removal of support, Watson and his assistant Rosalie Raynor decided to use the former as a stimulus for bringing about a conditioned fear response to a white rat. Under experimental conditions, when Albert reached out to touch a white rat with which he had been accustomed to playing, a heavy steel bar was struck with carpenter's hammer immediately behind his head. After just a few presentations of the rat and loud noise combined, presentation of the rat alone caused Albert B. to cry and retreat. Watson was convinced that his experiment had proven both the conditioned origin of a fear response and the utility of the conditioned reflex as a method of scientific investigation. He took pride in having launched the study of emotional behavior from the firm ground of natural science.

> Surely this proof of the conditioned origin of a fear response puts us on natural science grounds in our study of emotional behavior. It is a far more prolific goose for laying golden eggs than is James' barren verbal formulation. It yields an explanatory principle that will account for the enormous complexity in the emotional behavior of adults. We no longer in accounting for such behavior have to fall back upon heredity.[23]

Curious to know if Albert would be afraid of rats only or if the conditioned fear might be transferred to other animals and objects, Watson proceeded with the next phase of his research. After a recess of five days Albert still exhibited the conditioned fear response when presented with the rat. Next he was presented one at a time with a rabbit, a dog, a sealskin coat, cotton wool, human hair and a false face. In every case Albert reacted with fear, although it was less pronounced in some cases than others. After a thirty day period in which no more experiments were made, Albert was shown to have retained the original fear of the rat as well as the transferred emotional reactions. Watson concluded:

> . . . Unconditioned stimuli with their relatively simple unconditioned responses are our starting points in building up those complicated conditioned, habit patterns we later call our emotions. In other words, emotional reactions are built in and to order like most of our other reaction patterns. Not only do we get an increase in the number of stimuli calling out the response (substitution) through direct conditioning and through transfers (thus enormously widening the stimulus range), but we get marked additions to the responses and other modifications of them.[24]

Watson felt that the demonstration of transference enriched the explanation of adult emotional life and accounted for "unreasoning fears" and sensitivities of individuals to objects for which no adequate grounds were readily observable. He theorized that, notwithstanding the observable overt factors, such as speech and the movement of the eyes, arms, legs and trunk, visceral and glandular factors predominate in emotional responses. Their concealed nature had hitherto kept us from casting them in the terms of stimulus and response, which would open them to the same kind of objective treatment and regulation as overt responses. If emotional life develops like our other sets of habits, then there is no longer any mystique about it, no need for terms of psychoanalysis such as "unconscious complexes" and "suppressed wishes": we must simply learn how to talk about our emotional reactions in terms of the stimulus and response of our viscera and glands. Within a few years he would come to the conclusion that, were physiologically standardized norms of reactions to all of life's objects and situations worked out in the laboratory; the majority of our behavior patterns would be proven to be inefficient and emotional conditioned responses. As such they would be abandoned as superfluous and replaced by freer and more efficient modes of behavior suggested by a new and morally neutral "experimental ethics".

While openly admitted that he hadn't the full experimental data necessary to support the claim, Watson expressed the view that the conditioned emotional response and transferred responses would persist unless experimental steps or a very fortunate series of environmental settings took place. He believed that a second or differentiated stage of the conditioned emotional reaction in which transferred emotional responses are eliminated and conditioned emotional responses are reconfined to the initial conditioned stimulus was possible. Scientists working with animals had shown that, by repeatedly presenting the initial stimulus to the subject along with the original conditioned stimulus and never with the transferred stimuli, the animals learned to respond only to the original conditioned stimulus. The same experiment had never been tried with human emotional response; yet Watson was confident that it was possible and would explain why many adults, especially women and all primitive peoples, continued in the undifferentiated emotional state common to infancy and early youth: their environment had simply not provided the fortuitous experiences necessary for progress to the differentiated stage. Watson observed that, on the other hand, educated adults do reach the second or differentiated stage of conditioned emotional reaction. He attributed this difference to the experience they got in "manipulating objects, handling animals, [and] working with electricity," during their long training.[25]

Watson was immediately provoked into emphasizing the need for more research on the pre-school years, especially from birth up to the third year.

> Our view is that such happenings (conditioned emotional response) are permanently impressed upon the growing child. They remain not only as a part of his reaction system but also they tend to modify or prevent, by limiting the number of objects that he deals with, the formation of constructive habits. In other words, they modify his vocational future. When we consider that these conditioned emotional responses are being constantly set up in the growing child, not only in the realm of fear but in the realm of love and rage, and that they bring in their train a host of transferred responses, we begin to realize the importance of the pre-school age of the child; we then wonder whether our home system which more or less allows our children to "just grow," like Topsy, until public school life begins, is not a pretty dangerous procedure.[26]

It was one of the few publicly expressed regrets which Watson carried throughout his life that he was unable to set up "infant farms" - institutions for raising and studying human infants from birth onward in order to bring scientific enlightenment to the process of child-rearing. "It would lead to an untold wealth of new scientific conclusions and to a practical and common sense set of data upon the psychological care of the infant."[27]

The practically minded behaviorist was eager to see if conditioned emotional responses and their transfers could be broken down and by what method. The research was planned by Watson but was actually conducted by Mary Cover Jones under his supervision as the exiled professor was now taken up with earning his living as an advertising man. Unfortunately the tests were not to be conducted on Albert B. as he had been adopted since the conditioning experiments had taken place. After trying a variety of methods it was discovered that a process which Watson named unconditioning was most successful. The subject of the unconditioning experiment was Peter, a three year old boy who exhibited a well pronounced fear of white rats, rabbits, fur coats, feathers, cotton wool, frogs, fish and mechanical toys. Watson paired the positive experience of snack time with the gradual introduction of a rabbit - the animal which called out Peter's most exaggerated fear responses. Initially the rabbit was presented in a wire cage and at a distance just far enough removed from the boy that it did not disturb his eating. Each successive day it was brought closer until it could be placed in Peter's lap without disturbing him. When tolerance changed to the positive reaction of Peter eating with one hand and playing with the rabbit with the other, Watson believed that he had proven that both motor and visceral reactions of humans could be retrained by this method. Most of Peter's other fear responses were eliminated as well and those which were not entirely eliminated were greatly improved. Since Peter's fears were "home grown" and the order of the conditioning of the responses unknown, Watson speculated that perhaps the rabbit was not the conditioned response of the first order and that had it been all of the transferred responses would have "evaporated at once".[28]

> The whole field of emotions, when thus experimentally approached, is a very thrilling one and one which opens up real vistas of practical application in the home and in the school - even in everyday life.
>
> . . . If fear can be handled in this way, why not all other forms of emotional organization connected with rage(tantrums) and love? I believe firmly that they can be. In other words, emotional organization is subject to exactly the same laws as other habits, both as to origin, as we have already pointed out, and as to decline.[29]

Once again Watson stated that his report was incomplete and that further studies on larger numbers of infants and better conditions of control were necessary; yet he defended the publication of his data as it was. He was convinced that his work was on the right track and that it had profound implications for society. Since his earliest public pronouncements Watson had argued that the theoretical goal of psychology ought to be the prediction and control of behavior.

> It [psychology] attempts to formulate through systematic observation and experimentation a series of principles or laws which will enable it to tell with some degree of accuracy how an individual or group of individuals will adjust themselves to the daily situations of life as well as to the uncommon and unusual situations which may confront them. It is equally a part of the function of psychology to establish laws or principles for the control of human action so that it can aid organized society as to the ways in which the environment may be modified to suit

> the group or individual's way of acting; or when the environment cannot be modified, to show how the individual may be moulded (forced to put on new habits) to fit the environment."[30]

By unravelling the process of conditioning by which behavior is built up and torn down, Watson believed that he had revealed the essence of those principles or laws and that their formulation had required no reference to the usual terms of consciousness, mental sates, mind, imagery and introspection which he found detestable and absurd. If personality is simply the "habit systems" of an organic machine and if even the most complicated of our adult habits is reducible to the terms of chains of simple conditioned responses, then human behavior could be approached with the methods of natural science alone.

> When the phenomena of behavior are once accurately formulated in terms of stimulus and response, the behaviorist achieves predictability with reference to his phenomena and control over them - the two essentials every science demand.[31]

According to Watson, the compilation of practical behavioral data in strictly objective terms must be the very aim of the science of psychology if it is to be concerned with human life. He claimed that as a psychologist his interest was less in developing ideas upon the changes that would ensue from such practical data than in championing the necessity for maintaining uniformity in experimental procedure and the method of stating results. In fact, he even suggested that it was his commitment to this priority that kept him from responding to the many critics of behaviorism.

> I have never replied to a criticism. Only rarely has any one taken up the cudgels for behaviorism. Each behaviorist has been too busy in presenting his experimental results or his generalizations to concern himself with answering criticisms.[32]

Within the academic community Watson's demand for objective procedures and the expansion of psychology to relevant applications found immediate and long lasting support. However, the critics were quick to point out that Watson had constructed his theoretical edifice on the very scantily supported premise that thought and affect are implicit in bodily processes, and that he had a tendency to lose sight of the fact that his assumptions were unproven hypotheses based on personal conviction. He confused a partial and limited view of experience for the whole, passed too easily from negative findings to denial (for example: the rejection of centrally initiated processes or consciousness, instinct and hereditary) and, in a show of either lazy thinking or antecedent prejudice, he avoided problems which did not lend themselves to manipulation by scientific method. Not surprisingly, his rejection of consciousness and the propoundment of his method to the exclusion of all others were the prime sources of considerable and sometimes rancorous criticism. Far from laying the foundations for a new ethics based on morally neutral natural behavior, as Watson proposed, his critics protested that behaviorism's rejection of consciousness constituted an attack on the foundation of moral progress, that is freedom from the chains of determinism and mechanism to which animals are confined. His so-called objective viewpoint, they said, was nothing more than a dogmatic metaphysics of materialism, which simply ignored the critical problem posed by the inherent contradiction between the determinism of behaviorism and the freedom of action which he came to preach.

E.B. Tichener, in the first published rebuttal to Watsonian behaviorism, noted many of these flaws.[33] In addition he made a very astute observation which oddly was not taken up by the critics to follow him. Tichener was unperturbed by Watson's statements because, in his opinion, what Watson had formulated in behaviorism was not a new science that threatened to replace psychology "as psychology is ordinarily understood" but a technology driven by the practical goals of regulating and controlling behavior and evolution in general.

> . . . For science goes its way without regard to human interests and without aiming at any practical goal: science is a transcription of the world of experience from a particular standpoint, deliberately adopted at the outset and deliberately maintained; the pursuit of a practical end is the earmark of a technology. . . . Behaviorism can never replace psychology because the scientific standpoints of the two disciplines are different: we now see that Watson's behaviorism can never replace psychology

> because the one is technological, the other scientific.[34]

He predicted correctly that behaviorism would remain in some sort of correlation with conventional psychology; however, Watson was not to oblige Tichener in his expectation that behaviorist studies would continue more upon the lines of psychobiological exploration of organic changes than upon the programmatic statements which lent it its technological coloring.

Part of the reason that Watson's theory evolved less upon concrete scientific data than upon his own proposals for the reform of the science of psychology and society in general must be attributed to his untimely expulsion from the scientific community in 1920. Occupied with earning a living in the business world and lacking access to a laboratory, he was unable to extend his scientific research. With the waning of moral and religious value systems, there was a great public demand in post-war America for the guidance and efficiency of scientific experts - particularly psychologists - in determining the future course of social and political change. Writing articles for popular magazines was lucrative and Watson saw no reason preventing him from taking his ideas to the public via the mass media. As he remarked in his autobiographical essay for Carl Murchison's A History of Psychology in Autobiography, "I had learned how to write what the public would read, and, since there was no longer opportunity for me to publish in technical journals, I saw no reason why I should not go to the public with my wares."[35] What the public wanted was assurances that science could provide new remedies for the perceived social disorder and Watson was obliging. Unbound by the collegial discipline of the scientific community, he unleashed his charisma and extremist polemics upon an eager, albeit sometimes shocked, public.

With a crusading spirit often described as the surrogate of his lost Baptist faith, Watson propounded behaviorism as the foundation for a marvelously free and efficient society in which the encumbrances of history and traditions, the conundrums of philosophy and religion and the need to demand change could be dropped forever as men and women would voluntarily seek to rearrange their own lives and rear their children in the most efficient and healthy way. He expounded upon his ideas of how the conditioned reflex method could be brought to bear upon the problems of everyday life: child-rearing, personality and emotional problems, vocational, marital or sexual adjustment, education, justice, business, and advertising. Society or, more truthfully, the publisher or broadcaster need only name a topic of interest and the behaviorist had a ready suggestion.

Financial incentive and the allure of public recognition could in themselves explain why an alienated and debt ridden psychologist might pander to the demand for prescriptions for social reconstruction; however, in Watson's case, financial need ceased long before his pronouncements; furthermore, the desire to go beyond the mere collection of empirical data in the laboratory is evident much earlier on in his career. As early as 1916, Watson began recommending the expert psychological physician as the arbiter of emotional adjustment and vocational placement.[36] In 1917 he suggested that highly trained child psychologists should take over the early grades of schooling in order to ameliorate the mistakes of parents in the emotional formation of their children and to ensure with certainty that students would receive correct emotional and vocational training thenceforward.[37] Within Psychology From the Standpoint of the Behaviorist(1919), he offered students of psychology, parents, teachers, physicians and employers concerned with shaping the character of those under them "common-sense", practical suggestions regarding the measure of emotional normality and the treatment of maladjustment. By 1918 he was regarded an expert on the subject of human behavior and was widely consulted on topics such as education, business and efficiency.

Despite his frequent disclaimers to having an interest in the changes that would ensue from the practical data generated by behaviorists, it is clear that Watson's very attempt to redefine psychology was driven by the desire to quell his particularly acute personal experience of the emotional and social disorder felt by many Americans in the early decades of this century. In his opinion, the price exacted by social life in the present order was too often emotional sickness. He suggested that people become twisted by being forced into the ultimately unsuccessful exercise of trying to put away that part of their natural capacity which cannot be accommodated and those of their habits which will not be tolerated by society. The obvious biographical origin of the examples he used to illustrate this point indicate with poignancy how, under the guise of his science, Watson sought to reconcile his personal disappointments, anxieties and ideals.[38] Having firmly rejected religious and metaphysical explanations of life and shunning the intimacy of social relations, Watson sought to explain the order - or disorder - of his universe in terms of the physical world in which he was at ease. The only way out of the painful morass of social life, he thought, was somehow to rebuild both ourselves and our society with such technical efficiency that vulnerability and role confusion would be unknown. Behaviorism seemed an expedient means to achieving his goal.

> . . . Even if I were a religious man and even prayed, I would pray to my deity to make the behaviorist's view true even if it were not true. And if I believed in fairies and had a wishing-ring, my first wish would be just this: May I have a free hand, guided by science at every step, to shape the destiny of my child.[39]

Watson's attempts to use scientific results as "proof" of his theoretical assumptions had at once been recognized by Tichener as professionally improper. Other critics noted that few of Watson's proposals were actually backed by relevant experimental evidence and data. But for the great lay majority, characterized by antipathy for the metaphysical, sentimental or feminine, the manly aura of scientific respectability which Watson carefully cultivated was sufficient. His incursions beyond the realm of science into social theory - if they were noticed at all - were not perceived to be a problem as the Americans turned from religion to science, and particularily to the scientific psychologist, for fresh guidance in the creation of the "good" society. Watson's social prescriptions were seldom embraced wholeheartedly, yet his dashing masculine and rebellious image, his exuberant and direct delivery, as well as his tendency to simplify inherently difficult problems and focus on the practical, made him a compelling orator for the dawning society.

FOOTNOTES

1. John B. Watson, "John Broadus Watson," in *A History of Psychology in Autobiography*, ed. Carl Murchison (Worcester: Clark University Press,1936), 3:276.

2. John B. Watson, *Behavior: An Introduction to Comparative Psychology* (New York: Holt, Rinehart and Winston, Inc., [1914] 1967), 184-5.

3. John B. Watson, "Psychology as the Behaviorist Views It," *Psychological Review* 20 (1913): 158.

4. John B. Watson, *Behavior: An Introduction*, 322.

5. Forever careless of the contradiction between his metaphors, Watson once asked his readers to "think of man as an assembled organic machine ready to run." John B. Watson, *Behaviorism* (Chicago: The University of Chicago Press, [1924] 1966), 269.

6. John B. Watson, "The Origin and Growth of Behaviorism," *Archiv Fur Systematische Philosophie New Series* 30 (1927): 249.

7. John B. Watson, "Psychology as the Behaviorist," 154.

8. Ibid., 168.

9. Ibid., 167.

10. John B. Watson, "Image and Affection in Behavior," *The Journal of Philosophy Psychology and Scientific Methods* X, No. 16 (July 31 1913): 424.

11 Ibid.

12. Harrell and Harrison were particularly helpful in making this distinction. Willard Harrell and Ross Harrison "The Rise and Fall of Behaviorism," *The Journal of General Psychology* 18 (1938): 379.

13. John B. Watson, "Image and Affection," 423.

14. Ibid., 426-27.

15. John B. Watson, "The Origin," 250.

16. John B. Watson, Behaviorism, 111.

17. Ibid., 94.

18. Ibid., 136.

19. Ibid., 104.

20. Ibid., 274.

21. John B. Watson and Rosalie Rayner, "Studies in Infant Psychology," The Scientific Monthly XIII (December 1921): 510.

22. The writer is inclined to question the sincerity of Watson's reticence since it seems that he could as easily have worked to build up attachments of affection to objects as fears - though perhaps with less dramatic effect. Watson admitted that his own fear of the dark probably made him particularly interested in this problem. His own reactions in the dark, he said, were "chaotic and more or less infantile." John B. Watson "Practical and Theoretical Problems in Instincts and Habit," Suggestions of Modern Science Concerning Education, ed. Herbert S. Jennings, John B. Watson, Adolf Meyer, William I Thomas (New York: The Macmillan Company, [1917] 1925) 65.

23. John B. Watson, Behaviorism, 161.

24. Ibid., 165.

25. Ibid., 164.

26. John B. Watson and Rosalie Rayner, "Studies," 514.

27. Ibid., 515.

28. John B. Watson, Behaviorism, 175.

29. Ibid., 175-76.

30. John B. Watson, "An Attempted Formulation of the Scope of Behavior Psychology," The Psychological Review XXIV, No.5 (September 1917): 329.

31. John B. Watson, "The Origin," 250.

32. John B. Watson, Behaviorism, vi.

33. E.B. Tichener's was writing in response to Watson's articles "Psychology as the Behaviorist Views It" and "Image and Affection in Behavior".

34. E.B. Tichener, "On 'Psychology as the Behaviorist Views It'," Proceedings of the American Philosophical Society LIII, No. 213 (January-May 1914): 14.

35. John B. Watson, "John Broadus," 280-281.

36. John B. Watson, "The Psychology of Wish Fufillment," The Scientific Monthly III (1916).

37. John B. Watson, "Practical and Theoretical Problems."

38. His examples included: the individual who becomes a psychologist out of expedience in spite of a strong interest in medicine, the child whose chances for happiness are impaired by the excessive emotional attachment of a parent, the son who puts aside his mating instinct in order to care for a mother or siblings and suffers unfulfilled wishes and frustrated impulses as a result, the young man who will impede his career advancement in order to marry and settle down, and one who, without even admitting to himself that his marriage is a failure, will gradually shut himself off from any emotional expression, protecting himself from the married state by sublimating his natural domestic ties in work, hobbies, speed manias and excesses of various kinds.(Watson had a passion for speed boating and was known to get very upset at being out raced.) He speaks of mothers who become overly attached to their sons in substitution for departed husbands and of women whose chances for "normal" sublimation are limited by their lack of access to absorbing work and who consequently seek an outlet for their thwarted desires in unusual vocational pursuits. See in particular, "The Psychology of Wish Fufillment": 485-86.

39. John B. Watson, "What About Your Child?" Hearst's International - Cosmopolitan ~~85 (~~October 1985): 108.

CHAPTER IV

WATSON, THE SOCIAL THEORIST

Throughout the twenties, as Watson's position became more extreme and more openly ideological, the academic debate over its merits or demerits raged on inconclusively. On the other hand, Watson's reconceptualization of the field of psychology as a purely objective science with practical applications was received by many American psychologists as a welcome liberation from the study of the mind. One book reviewer noted, "As no one else, Watson had vitalized systematic psychology in contact with life and work.[1] Even more marked was the public response: whereas his extremist polemics and ideology gave rise to accusations of hucksterism from academia, among the general public it earned him greater publicity and influence.

As post-war reaction and conservative pressure narrowed the limits of political action and faith in citizen participation waned, responsibility for social change was shifted onto the scientists, who were believed capable of bringing human behavior under the management of science. Expertise was no longer to be directed at general social problems, as it had been in the Progressive period, but at the individual and the system held responsible for his adjustment within society - the family. With anxiety running high over the acknowledged weakening of the economic and institutional functions of the family and rising separation and divorce rates, social theorists began to elevate the importance of affectional ties and the accommodation of personality needs and aspirations within the family. Watson, with his bold proclamations on the subjects of child-rearing and human sexuality and his dramatic call for a universe of scientifically shaped and controlled individuals, was well placed to dominate the headlines. He caught the imagination of a disillusioned people seeking to trade away the tender-minded idealism of yesteryears for a new spirit of tough-minded realism. In his promises of a scientifically ordered world, characterized by efficiency, rugged individualism, independence, freedom, happiness and the ideal of democracy, many within the middle classes saw a reflection of their own longings. Less apparent to them - as it was to Watson himself - were the conflicting aspects of his program and the substantial problems inherent in employing behaviorism as the means to achieving their goals.

Watson was plainly disillusioned with contemporary American social institutions but none took a more central place nor excited more criticism in his theorizing than the family. His chief complaint against the family was that it prolonged the dependency of children upon their parents, stunting their emotional behavior, destroying the possibility of marital and vocational adjustment and any hope of happiness in their lives.[2] He was distressed that the conditions of modern life, which made mass communication possible, also encouraged uniformity in the environment making it ever more likely that society would continue forever to simply regenerate its old and wicked ways. Meanwhile the opportunity to nurture all manner of geniuses was being lost as parents, recreating children in their own image, produced people so "deadly dull" to each other that the flatness and staleness of personalities could only be escaped through sexual adventure and experimentation. His prescription was to scrap the family as it ~~was~~ known and replace it with a plan in which children would be rotated between many behavioristically trained parents, whose personalities differed as widely as possible. More effective still would be the complete destruction of parent-child relationships; however, Watson admitted that people's ideas and attitudes required changing before any of this was possible.

> Probably the simplest plan is to have no such thing as parent-child relationship. But before such a plan can be put into operation society itself will have to change its ideas of human nature and learn how human beings can be trained to play their parts in and make the most of this new era of opportunity which suddenly has come upon us.[3]

In short, if society truly wished to usher in change it must put aside doubts, adopt the mantle of behaviorism and accept the materialistic and determined view of human nature upon which Watson's theory and dreams of an harmonious and wonderfully free social order rested.

> The behaviorist's view (then) gives us a chance to clean house. Under the instructions of religion, philosophy and unsound biology we have chained all of our family skeletons to the shoulders of our new-born children. Wouldn't it be a relief to find that the behaviorist is right - that we can start over with each child and give him his chance, regardless of our own shortcomings or those of our ancestors?[4]

Watson knew little of our ancestral history and admitted as much. What he had read about primitive society he found meaningless and he was wary that too often the religion and morals of the authors of literature on the origins of human relations got in the way of their objectivity. "At best," he said,". . . one can only speculate about the truth of what happened millions of years ago."[5] Confident that his own objectivity was assured and apparently deaf to his own warning that any truth concerning our origins must necessarily be regarded as speculative only, Watson elaborated an entire history and analysis of the family unit founded upon the tenuous speculations of his armchair anthropology.[6]

According to Watson the fundamental basis of social organization is sexual. "Sex hunger," as he called it -

and not economic adjustment - was what called the primitive man and woman together.[7] Primeval children were left to sexual play and as adolescents were free to experiment more seriously. Eventually, successful relations based upon the relative size of sex organs, ease of intercourse, and emotional make-up, were established between one boy and one girl. The pair then withdrew into seclusion in order to accommodate the reappearance (every few hours!) and appeasement of the sexual hunger. Away from the interference and sex competition that other males and females represented, the couple enjoyed a "honeymoon" period of intense sexual conditioning lasting anywhere from a couple of weeks to several years. The pairs lived together for sex; however, non-sexual conditionings such as companionship, the preparation and sharing of food, support in times of sickness and the sharing of jobs around the hut and food grounds arose out of their cohabitation. These consequences, which Watson preferred to call "collateral conditionings," became increasingly important to the endurance of the relationship as the intensity of sexual behavior waned.

With the advent of a child the nice balance of sexual exchange was disrupted. To relieve the pain of her engorged breasts the mother learned to nurse her babe, thereby removing a powerful negative stimulus and providing positive sexual stimulation. As a result of the sexual stimulus she became conditioned upon the child, who throughout the ages since has acted as "a kind of attenuated surrogate for the husband."[8] Other collateral conditionings immediately arose in the mother-child relationship. She cared for the child, it became a playmate and companion and in later years a productive family assistant. So too did the father form collateral conditionings with the child, though initially he learned to accept the child as a condition of continued sex cooperation on the part of the mother.

Joint acceptance of the child, Watson believed, was the completing factor in the family unit. The relationship endured as long as the sexual and collateral conditions endured. Where no outside competition came in to break the conditioning he thought it probable that the family relationship continued throughout the life of the original pair but that, if the couple were separated, even temporarily, by the need to journey apart to seek food or defend themselves, the possibility for new matings would arise, be acted upon and the original relationship would terminate.

The conditionings which form the basis of social organization in Watson's theory are by his own admission a perilous foundation. "A thousand things can break down this conditioning, especially the sex-conditioning."[9]

The first real danger that the primitive family encountered, Watson speculated, was the sexual competition that arose when families grouped together through fear of enemies, other tribes or wild beasts. Though they learned to group themselves for work, play and protection, group sanctioned morals were necessary to sort out the rows that ensued over sexual and property relations. Instead of changing these regulations as the conditions which gave rise to them changed, they were passed on through generations becoming ever more hoary and useless. Cut free of its origins, unthinkingly accepted, and revered, the inflating code reached religious and mythological proportions, effectively squashing individualism and ensuring that each generation of parents right up to the present would continue to hand it on to the next.

> A child coming to adulthood in an American family is so wrapped up in layers of obsolete social, religious and political bandages that one must look upon him almost as a kind of living mummy, so restrained and restricted are the limits of his behavior. . . .
>
> Timid, fearful parents cannot bear to let their children grow up without being swathed in these bandages which were woven in the days of prehistoric savage life.[10]

Watson believed that the wrapping process that eventually bends, enfeebles and inhibits all the thinking of the growing child begins from the moment of birth. It is taught at the breast, in the nursery, church, school and community. In his opinion religion, sex superstitions and customs have the most profound ability to hamper the behavior of the individual by producing the faulty emotional organization which impairs our ability to make social, marital and vocational adjustments. Pampering children with love and attention destroys their ambition and independence, making success in business and relationships all but impossible, while guarding them from knowledge about the realities of sexual life commits them to going about blindly, in fear and invalidism, or to releasing their pent-up impulses in wild behavior and moral irregularities.

Watson decried the fact that most people continued to carry these shackles of family training and expressed grave doubt that the church or family would or could be modified by an intellectual approach.

> The educated, emancipated few who see only age-old, useless material dragged along and forced upon the child, might just as well butt their heads against a stone wall as to seek an intellectual awakening upon the part of the family. Both the family and the church - and they are inseparable - are doomed to roll on serenely until the road-bed underneath gives away.[11]

From Watson's point of view, the fortunate factor on the modern social scene was the fact that youths appeared to be digging up that very road-bed.

According to Watson, boys and girls were recognizing that their easy pliancy and adaptability made them the family members best able to understand and cope with the rapid changes surrounding them. So empowered they were no longer content to accept the mores of their parents. Through their contact with movies, sex novels, "the ever-increasing literature of rational, sane living,"[12] and the scientific courses offered in schools and colleges the young were developing questioning attitudes toward social or moral standards. Too sophisticated and discerning to follow the ways of modern adult society, he said, they were "taking the bit the teeth"[13] and leading a bloodless and peaceful revolution of experimental ethics that would ultimately leave but a few in familiar permanent family relationships and only the old and enfeebled in the church. The signs of this revolution were apparent to Watson in the freer sexual behavior of the young and in the evolution of new values already evident among them as well as in modern literature, arts, decoration, and business.

> 'Virtue,' 'purity' in the old sense, rarely exist and are not even considered desirable. But new values are coming into vogue: individuality - clear-sightedness - lack of illusion with life - facing of life with educated eyes - independence in thought and action - ability to stand up against their own mistakes and errors of judgment - ability to put the blame for failure and mishap directly upon their own shoulders.[14]

The inevitable consequence of the bloodless revolt of the youngsters, according to Watson, would be the early abandonment of the home. Even as he wrote, Watson felt that the process was under way. To him, the advance in age at which men were willing to marry, the decline in numbers of marriages, increasing incidence of divorce[15], extra-marital affairs and the willingness of parents to shunt the care of their children to the growing number of institutions designed not only for the relief of parents but for the advance of educated child-rearing amounted to an open admission of the inadequacy of family life and the home as a place fit for children. Men have never stayed at home, he said, and, since women had come to spend only a few hours there each day, the collateral conditionings of family life had broken down.

> It [the home] is not a fit place to be delivered of a child, it is no place to be sick in. We rush to the hospital for all our ailments. We even give our dinner parties at night clubs and country clubs. The home remains, I suppose, a place to change one's clothes in, to have cocktails in before going out for dinner, and a place for spending a few hours in sleep (even in this respect the rule is not unbroken).[16]

Having ceased to fulfil its functions, he concluded, the family home, as it was known, was becoming almost an obsolete institution. The age of science required new and better adapted forms of social relations between the sexes and between parents and children.

In his most positive assessment of the evolving social order Watson described a relatively smooth transition.[17] He lauded the greater sex freedom among adolescents as a return to the practice of primitive peoples and more in line with the behavior of other primates. Through experimental sexual experience boys and girls could choose mates on the basis of proven sexual performance (simultaneous orgasm and perfected sex technique being the benchmarks) rather than picking each other under the influence of "the fiercest of all hunger, which when active allows of no sane judgements."[18] The period of intense sex conditioning, which would ensue as they coupled in their private domain, would give the time and basis for the formation of collateral habits. Educated and independent they could live this way freely without interference or social pressure and, as a consequence, their chances of living their lives more or less permanently together would be far greater than the present circumstances allowed. If the sex conditionings died out or if collateral conditionings failed to mature, they would be under no legal or moral obligation to continue cohabitating.

In the future there would be no compulsion for couples to have children: freed of religious bondage, everyone would have access to information regarding the prevention of conception and venereal disease and all women to abortion on demand. Watson felt it likely that couples who had lived together until the woman had passed the age of thirty would then opt to have children - still without benefit of clergy - and, if caring for them became burdensome or tiresome, that they would be placed in one of the coming nurseries for infants and children. These institutions, which Watson was particularly interested in, would have none of the taint of orphan asylums or hospitals for children but would rather be something akin to thrilling childhood paradises. Under the unobtrusive guidance of behavioristically trained physicians and nurses children of every background would be received there without prejudice concerning their backgrounds and given the opportunity to have full swing for all their activities. Because the environment would be planned for the care and happiness of every child, children would soon forget all about their biological parents.

> Happy, joyous activity - the continued conquering of new worlds of things - will absorb their every waking moment. This activity can be wisely guided along the lines which will individually equip them for life outside - and a happy life at that because happiness is a matter of training from infancy on, rather than of material circumstance."[19]

The children so brought up would be:". . . happier and finer specimens of manhood or womanhood - more individual, more capable, less needful of laws, repressions and taboos than children brought up in the home.[20] On this Watson was willing to stake the whole practice of psychology.

For the most part Watson did not maintain this optimistic view of social evolution. Ordinarily he did not exhibit confidence in the drift toward sexual freedom as a sufficient catalyst for social change nor in the conversion of parents to behavioristic methods of child-rearing as a natural occurrence. The great stumbling block to social evolution, as he saw it, was the continuation of contemporary methods of child-rearing, which destroyed the individuality and stunted the emotional behavior of the offspring. Sexual adjustment could seldom be achieved, he said, because of the many infantile emotional reactions and parent fixations carried into adulthood. Even couples with a good sex life were likely to become fed-up with each other, due to the pressures of modern urban life which made men over-busy with their work, irritable and less tolerant of boredom.[21] Once the honeymoon period expired, couples found themselves absorbed with interests which were not mutual: he with getting ahead at work and gaining recognition in the community and she with entertaining and the accoutrements of the home. With the exodus of children from the home, the lack of collateral conditionings which formerly held couples together and the abundance of opportunities for new sexual conditionings, partners would inevitably make new liaisons, which were just as surely doomed to fail. Watson recommended that, to accommodate our sexual hunger and fickleness, easy divorces should be granted to those men who could afford to provide financial support to the alienated woman and offspring. He recognized that this was no solution at all for the "rank and file" but, in the absence of any other solution, he felt that this, would make the retreat from marriage more orderly until, through trial and error some other formulae were devised to keep male and female living together under group sanctions. In fact, Watson had already devised such a formula.

In an article published by Liberty magazine in 1929 the behaviorist spelled out in some detail his vision of a utopian society in which individuals and the social order were scientifically controlled and shaped for marital and vocational adjustment.[22] In Watson's utopia the behavior of every individual is a community concern and responsibility and, as such, it is wisely placed in the capable hands of extensively trained and state employed behaviorist physicians, who watch over the psychological health of infant, youth and adult. The primary element of Utopian psychology is the prevention of emotional fixations and dependencies or failures in social adjustment. Utopian children, while they are not without the "spark of emotional life," which differentiates one individual from another[23], are trained to have efficient reactions, for according to Watson, "The sex problem (too) must be solved before the individual is free to pursue his other vocations."[24]

In order to raise such children Utopians understand that the genetic identity of the child must remain unknown to parent and child alike. The new-born infant must be taken from its biological parents at birth and placed in what will be the first of a continual series of homes, in each of which the child will spend exactly four weeks - making for residence in 260 homes by the time he is put out into the world at the age of twenty. Each home includes a husband and wife - for Watson admitted that he was old-fashioned enough to want to see monogamy retained in an improved state - a scientifically trained assistant who acts as nurse and instructor and a scientifically determined number of children not to exceed three in total but fewer if statisticians deem it necessary for the control of the population. The behaviorist physicians have the most important role in the shaping of individuals and society. Each is assigned to oversee the medical and mental health of the members of about a dozen homes each: curing bodily ailments, recommending and performing euthanasia for the incurably insane, the incurably diseased, and defective infants not considered viable for experimentation or the development of special compensations. Most importantly the physicians undertake to recondition those children or adults in their group who show signs of conduct deviation.

> . . . If they run amuck, if the children show emotional upsets, if they play truant, steal, or show unstandardized sex reactions, the physician takes them in hand and first unconditions - that is, clears out the unsocial ways of behaving - and then reconditions, or conditions further. . . .
>
> The physicians have extensive training grounds where psychologically sick individuals can be retrained, and if an Utopian becomes hopelessly insane or incurably diseased,. . . the physicians do not hesitate to put them to death.[25]

The whole purpose of the rotational home scheme is to prevent the formation of strong attachments between parents and children and to ensure that personal habits and conditionings grow up perfectly. During the formative years before age three children are kept close to home learning the emotional and dispositional habits which will equip them for life. As soon as possible the youngsters are set out alone in the yard or playroom to conquer their environment. To foster independence, which is the highest of Utopian virtues, they are taught to solve their problems on their own through experimentation and to appeal for help only when they fail to achieve results. For this same reason religion, churches, clergymen, philosophers and all metaphysical associations are without a place in Utopia. In the old order which the Utopians fled these were the instruments used to ensure lifelong dependency, excuse failure and weakness, and encourage resignation, laziness and inefficiency.

Utopians are raised to be self-reliant, objective, emotionally detached and accepting of death as the natural and permanent termination of life. In this way they are protected from the devastation that we presently feel at the loss of fortune, material goods or the death of companions. For them happiness is to be sought in the things they are doing. ". . . Complete absorption in activity is the keynote of the happiness of our children. It is our definition of behavioristic happiness."[26] The child's environment is always arranged to call out activity, with an emphasis on making things out of raw materials. It is kept as frontierlike as possible during the tender years and is to be made increasingly complex and difficult as the child matures. At age three or younger the boys and girls of Utopia head off to school where the tradition of independent learning by doing is continued. The youngsters are put into ever more difficult situations calculated to duplicate real life situations from which they must extricate themselves through trial and error behavior. "Skill in many activities brings peace and fearlessness for the future."[27]

In Utopia everyone feels perfectly free and without need of political structure or "that abstract entity we call the State".[28] There is no right or wrong in Utopia, no punishment, judicial system or prison, no emotional disequilibrium or loneliness. Ignorant of political or religious causes and no longer guided by history and tradition, Utopians pursue only behavioristic happiness for themselves and their children. They enjoy more leisure yet possibly work harder than the present society because they are trained to be absorbingly active throughout the waking hours. There are no problems with youths, who always know what to do with themselves and are capable of doing a great many things. People are interesting and, because they have been properly trained, get along well together as man and wife, as co-workers and as community members.

Watson's dream of improving society by preparing children to fit their adult roles was also expressed - though in less detail - in his non-Utopian literature. In the closing paragraphs of Behaviorism, he expressed his belief that, while adults would benefit from understanding the principles of their own behavior, the real hope for the future lay in the advent of behavioristic child rearing. Behaviorism ought to make men and women

> . . . especially eager to prepare themselves to bring up their own children in a healthy way. I wish I could picture for you what a rich and wonderful individual we should make of every healthy child if only we could let it shape itself properly and then provide for it a universe in which it could exercise that organization. . . . For the universe will change if you bring up your children, not in the freedom of the libertine, but in behavioristic freedom - a

> freedom which we cannot even picture in words, so little do we know of it. Will not these children in turn, with their better ways of living and thinking, replace us as a society and in turn bring up their children in a still more scientific way, until the world finally becomes a place fit for human habitation?[29]

Psychological Care of Infant and Child, a practical child-rearing handbook which was very widely read, described how this process of change might begin in the world as it was. Dedicated ". . . to the first mother who brings up a happy child," it reiterates - with burning invectives - Watson's opinion that without special training parents wrecked their children's chances for social adjustment and happiness by conditioning them to harmful emotional responses. His purpose in writing the volume would be abundantly accomplished, he said, if he "contribut[ed] in any way to help the serious mother solve the problem of bringing up a happy child. . . . who finally enters manhood so bulwarked with stable work and emotional habits that no adversity can quite overwhelm him.[30] Watson believed that, by understanding and utilizing the processes of conditioning and unconditioning and following the scientifically calculated daily regimes for child-care which he outlines, that mothers could immediately begin to take advantage of the opportunity presented by the early years of life to implant the behaviors which science suggested were necessary for social adjustment.

In his contribution to a symposium on the unconscious, Watson recommended as the "behavioristic ideal" that every child, by the age of fourteen, should be trained to thoroughly understand the functioning of his organism. Then he should be taught the rudiments of "mental hygiene": to understand fear, love and anger reactions, how infantile unverbalized behavior arises and is carried into adult life, and about inappropriate sex behaviors and depression. Once trained to spot these reaction patterns in others and in himself, and given the "essentials and rudiments of corrective hygiene," every boy and girl would be "behavioristically self-correcting."[31]

For Watson the essentials and rudiments of corrective hygiene entailed both an understanding of the processes of conditioning and unconditioning and the development of a broad personality - one with solid work habits, an extensive repertoire of manipulative skills and ways of acting emotionally. He "longed" to see children

> . . . kept flexible, sensitive to every impression, living a full, varied life, putting on one accomplishment after another and yet trained to reach some excellence in each act he undertakes. This mode of guiding the child into varied and complex activities furnishes many strings to his or her bow.[32]

For Watson, the capacity to grow or enlarge one's inventory of emotional and vocational assets was the best insurance against depression(a problem that dogged Watson personally) and suicide; yet when it came to sexual matters he still believed that even the behavioristically self-adjusting person would require the expertise of a psychological professional.

To Watson sexual adjustment was the greatest problem of the day. "It is admittedly the most important subject in life. It is admittedly the thing which causes the most shipwrecks in the happiness of men and women."[33] His prescriptions for its resolution shocked and enraged his readers and are often pointed to as a prime indicator of his radicalism. If the problem was ever to be resolved, he suggested, parents must overcome their desires to kiss, hug, hold, cuddle and, in any way, coddle their children. They must also overcome their failure to impart full, accurate, objective and unsentimental knowledge of sexual relations. Sexual knowledge ought to be imparted to children as rapidly as they could take it in[34], and, if parents hadn't the correct and unsentimental information they needed to educate their children to deal with this fundamental problem of life, they ought to consult a qualified psychopathologist.

Watson's materialist philosophy required a material explanation for social organization and he grounded his in the conditioning which attends the appeasement of the physiological hunger for sex. He admitted from the outset that it was a shaky foundation because of the tenuousness of sexual conditioning: in the presence of a new potential sexual partner an existent sexual conditioning is very likely to break down. If Watson were content with his materialism and had carried his argument to its logical conclusion, this ought to have bothered him little. Under the conditions of an abundance of available sexual partners man would have need for little more society than his less developed cousins of the animal world. He would appease his sexual hunger at will in a continual series of promiscuous relations and the progeny would be nurtured only as long as there were some material reason for doing so. However, Watson did not stick with his materialist philosophy: openly stating no better reason than his old-fashionedness, he admitted wanting to see an improved monogamy tried. This lapse in logic is one of many which expose his true ambivalence toward strict materialism and the veracity of his own argument that natural science alone could provide an adequate explanation for and means of controlling human behavior.

If he were consistent with his determinism, Watson would have to admit that the psychologist could do no more to change the individual's behavior than the individual could do for himself. Instead, he argued that society must necessarily rely upon the expertise of the behaviorist, at least until every child could be trained to become behavioristically self-adjusting, because only he could work out the intricacies and details of preventing and eliminating the stubbornly persistent and undesirable conditioned emotional responses which weakened the social fabric. On the other hand, Watson also held that some adults, particularly better educated ones, reached a differentiated stage of emotional reaction in which most of their emotional conditionings were overcome simply through the environmental settings which their education afforded them. When a good education will do the job - and according to Watson's environmentalism everyone fit for life is educable - it becomes unclear why society must place its emotional life in the hands of the behaviorist.

There is good reason for the fact that Watson's prototype of the educated person capable of reaching differentiated emotional adjustment is described as one having experience in "manipulating objects, handling animals, [and] working with electricity"[35]. Watson had to lift himself above his own determinist theory to set goals for humanity and work consciously toward their achievement. The inevitablity and inconsistency of allowing for such exceptionalism within a determinist theory was something which Watson never seemed able to grasp even when social elitists and eugenicists laid claim to his theory as support for their own notions of a superior people. Painfully conscious of the social stigma of his own roots, he angrily repudiated them for retaining consciousness for themselves and adopting behaviorist psychology to control others. He stubbornly proclaimed his environmentalism and insisted that his reductive view of man extended to all people.

What motivated Watson to admit sexually precocious youths into the growing fold of the "emancipated few" is open to question. Furthermore, it is unclear whether they were set free by their science professors, the movie moguls, sex novelists, or authors of the literature of "rational, sane living" (who must also have outwitted the conditionings of their environment); or if in fact they were leading a revolution of their own making which the others merely reflected. Some of Watson's detractors advanced the argument that he simply pandered to the youth in order to gain the popularity and publicity which he so enjoyed.

According to Watson the freedom of youths seems to flow from their ability to overthrow the sexual mores of their parents. A little practical experience, he suggested, could undo all the taboos, dire warnings and sacred vows designed to condition them to chastity and marital fidelity.

> . . . We find that the sun doesn't swerve when we actually touch one (of the youthful girls of the neighborhood).
>
> Again the marriage vows condition us for a time, but the bottom doesn't drop out of everything if another girl happens to kiss us after marriage. Conscience at first gives us quite an electric shock but soon even that apparatus seems to get out of gear."[36]

Just as the possibility of self-emancipation throws the importance of the behaviorist and his determinist theory into question, so too does the number of conditionings, which appear to lack the persistence sufficient to sully the experience of youth and ruin the marital and vocational adjustment of the adult as Watson alternately warned they assuredly would.

Notwithstanding the argument that moral restrictions, fixations, dependencies, fears and miserable dispositions built into children could impair the quality of their adult sexual relations, according to Watson's theory of the genesis and fall of the family the factor which emerges as the most critical impediment to social stability is sexual competition or infidelity: yet his discussion of the issues of sexual desire and sexual self-control was conspicuously scant. Instead he focussed almost exclusively upon the threat of sexual maladjustment. By emphasizing the idea that sexual relations had been rendered nearly impossible by the emotionally debilitating effects of child-rearing practices predicated upon the traditions of a religious moral code, he was able to divert the readers'attention (and perhaps his own) to the supposed social imperative of abolishing traditional parent-child relationships and child-rearing practices in favour of a scientifically shaped and expertly administered system of child rearing. Then, the science of behaviorism and the behaviorist become the guarantors of sexual adjustment and social stability by promising to free future generations of the infantile habits and dependencies, which traditional child-rearing practices made inevitable.

Not suprisingly, when Watson contemplated the improvement of relationships between the sexes, he found that he could not keep his focus trained on the perfection of sex technique. Although sexual adjustment was certainly a main pillar in his thought, he pointed to the existence of other concerns of equal or greater significance. On occasion, he drew attention to the importance of collateral conditionings as factors in the longevity of relationships between men and women, and if it did not outweigh his emphasis on sexual adjustment, Watson's concern with vocational adjustment at the very least formed the twin pillar of his program. Both issues were raised by him in the context of a rare discussion of the problem of sexual fidelity. In the article "Men Won't Marry Fifty Years From Now," Watson unwittingly conceded that men are drawn to women as much by the need for companionship, emotional support and the sharing of mutual interests as they are for the satisfaction of their sexual desires; however men's vocational pursuits kept them so little in the home that these collateral conditionings could not be successfully established. Here, too, he introduced the apparently new idea that man suffers from "an eternal drive to try out the new and the different."[37] It finally becomes evident, in spite of his vigorous attempt to blame the problem of infidelity on the narcissim, laziness, sexual failings and greed of women that it is this drive, as it applies to the members of the opposite sex, that is at the root of the problem of man's sexual infidelity. It is the male's incessant search for the relief of boredom, his appetite for novelty and interesting social intercourse which makes the presence of a multiplicity of potential sexual partners the most intractable problem affecting social stability. Having stepped beyond the boundaries of materialism in his assumption that there were some reasons for retaining monogamy, however much he might want "no mind," "no spiritual force" and no "extramundane principle"[38], Watson found himself at a loss to explain both fidelity and infidelity without covertly allowing man these vitalistic elements of purposiveness.

Furnishing a clue as to why he emphasized the training of children for emotional detachment and adult sexual performance (fitting them for the competition as it were), and avoided the discussion of human desires and sexual self-control, Watson acknowledged that in reality man's "eternal drive to try out the new and the different," at least as it applied to sex partners, was beyond the control of the behaviorist. "If there were some way of giving the man a strong electric shock. . . every time he held hands with, kissed, or looked favorably upon a woman not his wife, society would have the thing under control.[39] However, in real life, he reflected, the conditions of the laboratory could not duplicated. Watson would just as soon have avoided the occasion of temptation as confront it. "The ideal situation for happy family life," he said, ". . . is thus a man and woman living together with plenty to do, with or without children, in a secluded cave, hut or blind, with little contact with other human beings with no scars from early training and no yoke from religion and mores.[40]

In his call for a new universe shaped by behaviorism, Watson envisioned the lifting of the yoke of religion and mores; yet he specified that, whatever else behavioristic freedom might mean, it was not an invitation for "free love". Appended to the summons is a note in which he states:

> I am not arguing for free anything. . . . The behaviorist, . . . would like to develop his world of people from birth on so that their speech and their bodily behavior could equally well be exhibited freely everywhere without running afoul of group standards.[41]

In his child-rearing manual, he explained that the child must attain the habits, conventions and customs "which polite society demands"[42] in order to free up his visceral or emotional equipment for other challenges. The child who has mastered the "stupidly simple demands society makes upon him," Watson said, will be "a happy child free as air."

> An original child because his perfect adjustment to his environment gives him leisure to experiment. . . .
>
> The only person in life who is effectively original is the person who has a routine and has mastered a technique. The person who has not these is a slave - his life is taken up in trying to keep up with the procession of those struggling to obtain just bread, meat, and a roof for shelter.[43]

Under the conditions of modern civilization, something must be done to constrain man's ungovernable urge to try out new sex partners. Watson knew from personal experience what havoc uncontrolled sexual wanderlust could wreak. According to his theory, if man could not be fitted to his environment only one option remained: the environment must be fitted to the man. And from this heuristic sprang Watson's ideas for the education of woman.

FOOTNOTES

1. Frederick L. Wells, "Book Reviews," *Mental Hygiene* 4 (1920): 455-459, quoted in Franz Samelson, "Organizing for the Kingdom of Behavior: Academic Battles and Organizational Policies in the Twenties," *Journal of the History of the Behavioral Sciences* 21 (1985): 37.

2. Watson gives no clear definition of what he means by either vocational or marital adjustment, although he seems to equate the latter with his equally ambiguous notion of sexual adjustment. It appears that by vocational adjustment he means the ability to find satisfaction and absorption in one's work and that, in the case of either marital or sexual adjustment, the essential element is the capacity and willingness to engage in mutually satisfying sexual intercourse.

3. John B. Watson, "What About Your Child?" *Hearst's International - Cosmopolitan* 85 (October 1928): 108.

4. Ibid., 110.

5. John B. Watson, "After the Family - What?" in *New Generation; the intimate problems of modern parents and children*, ed. Victor-Francis Calverton and S.D. Schmalhausen (New York: Macaulay, 1930), 56.

6. Ibid., 55-73.

7. Except to acknowlege the need for rules to govern property relations, Watson apparently didn't see the need to address any other form of relations between people.

8. John B. Watson, "After the Family," 58.

9. Ibid., 60.

10. John B. Watson, "After the Family," 62-63.

11. Ibid., 66.

12. Ibid., 67.

13. John B. Watson, "The Behaviorist Looks at Youth," Independent Woman 7 (1928): 439.

14. John B. Watson, "After the Family," 67.

15. Divorce rates were on the rise in the twenties, however, contrary to Watson's beliefs, marriage was more popular than ever and, both men and women were marrying younger than several generations before them had. Nancy F. Cott, The Grounding of Modern Feminism (New Haven: Yale University Press, 1987), 147.

16. Ibid., 55-6.

17. Ibid., 55-73.

18. Ibid., 71.

19. Ibid., 73.

20. Ibid.

21. John B. Watson, "Men Won't Marry Fifty Years From Now," Hearst's International - Cosmopolitan (June 1929): 104.

22. John B. Watson, "Should a Child Have More Than One Mother? A Psychologist's Notion of a Better Way to Grow Up," Liberty 6 (June 1929): 31-35.

23. Ibid., 35.

24. Ibid., 32.

25. Ibid., 34.

26. Ibid., 35.

27. Ibid.

28. Ibid.

29. John B. Watson, Behaviorism (Chicago: The University of Chicago Press, [1924] 1966), 303-4.

30. John B. Watson, Psychological Care of Infant and Child (New York: Arno Press Inc. [1928] 1972), 9-10.

31. Watson specifies that by "mental hygiene" he means "social hygiene" as well. John B. Watson, "The Unconscious of the Behaviorist," The Unconscious: A

Symposium ed. E.S. Drummer (New York: Knopf, 1928), 110-114.

32. John B. Watson, "How to Grow a Personality," Psychology Series, Lecture no.12 (Chicago: The Universtiy of Chicago Press, January, 1932), 6.

33. On the subject of his own sexual education James B. Watson recalls that it began: "...from the day we were old enough to comprehend even slightly what they were saying." In his opinion it came too early, too often and put substantial performance requirements on sex. As example of his father's overemphasis on sex he says, "I can remember that from the age of about seven Dad frequently told me and my brother as well as anyone within hearing distance that if the social laws would permit it he would have a mistress for both of us." Mufid J. Hannush, "John B. Watson Remembered: An Interview with James B. Watson," The Journal of the History of the Behavioral Sciences 23 (April 1987): 140.

34. John B. Watson, Psychological Care, 9-10.

35. John B. Watson, Behaviorism, 164.

36. John B. Watson, "Men Won't Marry," 106.

37. John B. Watson, "Men Won't Marry," 106. In an earlier article Watson hinted at this problem in the context of a discussion of sexual activity and the relief of boredom. John B. Watson, "What About," 77.

38. John B. Watson, "Is Man a Machine? A Socratic Dialogue," The Forum 82 (November 1929): 265.

39. John B. Watson, "Men Won't Marry," 106.

40. John B. Watson, "After the Family," 60.

41. John B. Watson, Behaviorism, 303.

42. John B. Watson, Psychological Care, 113.

43. Ibid., 150-151.

CHAPTER V

WATSON ON WOMEN AND THEIR EDUCATION

During the twenties many of Watson's writings were of an advisory nature and directed specifically at female audiences. He addressed them primarily as mothers and wives and tried, through them, to bring his behaviorist vision to bear upon future generations. Behaviorism, he had said, ought to prepare men and women for understanding the principles of their own behavior and make them eager to rearrange their own lives.[1] In fact, Watson held little store in the ameliorative potential of his theory as it applied to adults. While he could find no scientific reason prohibiting change in the adult personality or character, the practical limits of changing millions of habits, more or less fixed by the time youth passes, led him on one occasion to exclaim, ". . . The zebra can as easily change his stripes as the adult his personality."[2] While this may have been particularly disheartening news to women, whom Watson pronounced unfit for careers or competition in the work place by virtue of their not being trained to habits of work from infancy, they were reserved a prominent place in the behaviorist revolution. As the primary caretakers of children they were the conduits to the future.

Women could assist the behaviorist in what was really his most important hope: that his scientifically shaped plan for raising children to psychological health be adopted. If freedom could not be theirs, at least women could fight for the freedom of their daughters and sons. However, as Watson's vision of and program for the future unfolded, his women readers had much reason to doubt both the means and the end.

Watson's education of mothers centered on two themes: correcting their understanding of human nature and teaching them the daily routines of behavioristic child-rearing. Once it was understood by the mother that the entire personality and future of her child was shaped by the environment and routines which she provided, Watson felt, that she might overcome her resentment toward professional advice and earnestly begin to ensure that her settings and routines were scientifically calculated to raise a child to be happy, efficient and well adjusted to life. In view of the immense responsibility entailed in child-rearing, Watson hoped that someday Americans might realize that only those women who had leisure to become trained in the ways of behaviorist child-rearing and means to provide a child its own room for the first two years of infancy ought to be allowed to bear children.[3] For this reason his child-rearing advice was addressed principally to them.[4]

Of all the failures of traditional parenting Watson was most particularily critical of the devastating effects of too much mother love and too little knowledge of and openness towards the subject of sex. According to Watson affection and love responses, like all behavior, are conditioned: initially only the stroking of the skin brings out the love response in the infant; however, it is soon conditioned to respond lovingly to the mere sight of the mother's face and any other attendant who fondles it regularly. Watson held that American parents, particularly mothers, were prodigal of their affection and thus responsible for an unprecedented national level of adult infantilism.

> The women (the wives) haven't enough to do today. Scientific mass production has made their tasks so easy that they are overburdened with time. They utilize this time in destroying the happiness of their children.[5]

> The fact is that because our youngsters have been overpampered and overpetted they are unable, when they come to adult years, to make adjustments to the demands of society. . . . .
>
> If their minds had matured, if they had broken away from their 'nest habits' they would have been able to solve their problems in a mature, sensible way. But since these carry-overs or habits persist on account of the encouragement and pampering of the parents, we consequently have people who are unable to make adjustment in the business and social world and in their marital relationships. . . . That is why we, as a nation, are suffering from adult infantilism more than any other nation in the world.[6]

Mothers had two reasons for coddling their children, one acknowledged and the other not. The acknowledged reason was that she felt it necessary to her child's happiness and the development of a kind and good nature. The second reason was that, because of her own inadequate training, she had come to crave the expression of love. "Her mother before her had trained her to give and receive love. She is starved for love - affection, as she prefers to call it. It is at bottom a sex-seeking response in her. . . . ."[7] Once the intensity of the demonstrative honeymoon period of married life dissipated, she turned upon her child what she thought was a harmless expression of love. Even if she still loved her husband, his absence from the home all day presses her into showering her child with love and kisses. If mothers wanted to train their children to make the adjustments to the business, social and marital realities which they must eventually face, Watson warned that they must recognize how easily a child can be overtrained to love and then undertake the scientific training which would ensure that the child's emotional life was not dominated by love reactions.

A mother must take great care in the selection and training of the nurse or governess or, if she must do the job of caring for the child herself, as most American women had to, she must look upon herself as a professional and adopt an appropriately professional attitude toward her child. Instead of wasting away the child's waking hours in petting and coddling thus robbing him of the time he requires to manipulate and conquer his universe, she should develop his manual techniques and independence; mothers must learn to keep away from their children as much as possible. If she could not control her tender heart pangs, Watson suggested that she view her child at play through a peephole or using a periscope. Above all she must learn to minimize physical contact with the child, in order to reduce the love conditioning which would grow up even through the unavoidable tasks of bathing and feeding him.

> Dress them, bathe them with care and circumspection. Let your behavior always be objective and kindly firm. Never hug and kiss them, never let them sit in your lap. If you must, kiss them once on the forehead when they say good night. Shake hands with them in the morning. Give them a pat on the head if they have made an extraordinarily good job of a difficult task. Try it out. In a week's time you will find how easy it is to be perfectly objective with your child and at the same time kindly. You will be utterly ashamed of the mawkish, sentimental way you have been handling it.[8]
>
> . . . Remember when you are tempted to pet your child that mother love is a dangerous instrument? An instrument which may inflict a never healing wound, a wound which may make infancy unhappy, adolescence a nightmare, an instrument which may wreck your adult son or daughter's vocational future and their chances for marital happiness.[9]

Mother love and the fixations or "nest habits" which it wrought were not the only causes of marital failure which Watson felt he could remedy through the education of mothers. The emotional rebelliousness of youth, the sex obsessions and unintelligent sex life of the average person, as well as the rampant divorce, neurasthenia, melancholia and invalidism of his time, all of which he believed to be bedeviling the contemporary social fabric, could be corrected, if only parents turned to the experts for their information about sex.[10] "They need experts to inform them truth about sex as it relates to their own welfare and the welfare and stability of human society."[11] It was well known, he said, that not more than one in four women had the knowledge or training in sex to experience "the full value of the sex relationship." Unless that overwhelming incompetency in mothers were corrected, three out of four would go on giving their sons and daughters a "dwarfed, starved and generally inadequate picture" of the husband and wife relationship.[12] It was therefore imperative that mothers consult a psychopathologist for the instruction which her mother had failed to give her.

With her own child the mother must establish the rapport and openness and objectivity necessary for frank discussion of sexual matters by setting aside several periods a week in which she would encourage the child's questions about him/herself, his organism and its organization. If she started this talking it out early enough,(he recommended she begin when the child reached the age of two), it would safeguard the health and sanity of her child. Notwithstanding, the discussion of the subjects of reproduction, the bodily changes accompanying puberty, and the problem of venereal disease should be given over to a competent physician.

Mothers had a more direct role to play in the prevention of homosexuality - a matter of great concern to Watson. By vigilantly following the routines of child care prescribed by him for the prevention of obsessive masturbation and by ensuring that their children had companions of both sexes, he felt that homosexuality could be prevented. Mothers needed especially to be forewarned that comtemporary society made all women slightly homosexual. The close relationships between girls and the demonstration of affection between them ought not to be regarded as natural.

Finally, most difficult of all was the job of preparing their children for marital relations. Watson would have preferred to see the "ars armandi" taught in colleges and universities but, until youths could be placed in "safer hands," parents must be relied upon. In the future, once science became generally accepted as the standard bearer of sexual knowledge, the "old wives tales, traditions and customs of the past" would be replaced by sound and scientifically tested truths that would afford men and women a richer experience of life.[13] Under the circumstances, he advised both men and women to divest themselves of their prudery and to study the subject as they might any other scientific problem.[14]

Pessimistic as he was about contemporary social organization and the chances of marriages enduring happily, the only advice Watson could offer women when addressing them, not as mothers but as wives, was that they keep themselves fit for serious competition with other women. If it were their intention to hold on to their husbands, wives must endeavor to stay interesting and attractive to their husbands by keeping up their own physical and psychological care as well as their standards of dress. Even if her doctor counselled her otherwise or her husband "takes a sledgehammer to her," Watson advised wives not to bear children before the age of thirty.[15] Carrying even one child robbed all but a few lucky women of their girlish figures and virtually no women could survive two or three babies with their waistlines intact. "To the world she may look the same but to her beauty - loving husband the difference is unmistakable."[16] If she must, Watson said, a women could bear a child once she had turned thirty, because by then, even if she had exercised, kept her weight down and was not physiologically old, the "fresh charm of youth" is irretrievably gone from her.

Watson pictured young girls eagerly employing every known cosmetic aid and feminine wile to cinch a man before their unkind biological clocks struck forty, sounding the death knell of their man hunting days, after which:

> . . . she may belong to the famous "Forty of Paris" and set the style. She may borrow all the fine feathers from all the famous couturiers and buy all the famous perfumes of Nice. In the evening she may wear long trailing gowns made of satin and have her own luxurious car, but she cannot wear her waistline where nature intended it to go. She is through, and the fireside will soon be calling her.[17]

He warned wives that neither marital status nor age would deter the "modern Diana," who recognized the value of a good-looking, experienced, successful man. ". . . He will know all the better how to admire her and shower her with lovely words, and material goods, and in general help her to admire herself and give her the setting she needs."[18]

In addition to the temptation of unmarried women, Watson estimated that married men had to contend with being hunted by the 80% of married women whom he estimated to have been unsuccessful in their sexual adjustment. In the face of such competition, he wondered how married men, reaching their prime between the ages of thirty and forty-five with poise, sophistication, wisdom, success and many other capabilities, might reasonably be expected to stay interested in their spouses, who, if only a few years younger, and especially if they had borne children, had unmistakably lost their youthful charms. He invited his readers to picture the debilitating distance between them.

> Their wives look ten years older than they do, ten times tireder, ten times more lifeless, ten times fatter. Watch the theater exits some night - see the handsome well-set-up men, then look at their wives - fat, waddling, fatuous. Go down into the working centers. The men are browned, sinewy, hard, lean: the women fat and wabbly.[19]

When a man came home irritable from the swiftness, noise, and jar of his world and the overwork and hurried decisions of his job, he was unwilling to put up with boredom. He wanted someone entertaining, "someone to play with, someone to tell him how harried he looks, that he is working much too hard, how big and strong he is.[20] And under the circumstances created by women's idleness, there was an abundance of "Jezebels" ready to oblige him. Unlike his wife, who had learned to get along without him because his work kept him so little at home, the Jezebel was always ready to please him, play with him and marry him - if he were rich enough to afford a divorce. But once married, the Jezebel let herself down in dress and personal care and the cycle repeated. If the law were changed such that divorce settlements were not to exceed an amount set by law as the minimum required to keep a woman and child respectably, he speculated that women might be less tempted to marry simply "to get the divorce melon," as he believed a great many did [21]. They might then try as hard to keep their marriages together as he seemed ~~to~~ believe men were.

In earlier years, while he was yet a professor with Johns Hopkins, Watson appeared to have at least some awareness of a few of the social conditions which discouraged women's success and economic independence making her a huntress of men.[22] To Watson, the publicist of the twenties, whatever vestiges of that dim awareness remained only haunted his logic, like the rattling bones of closeted skeletons. For example, he opened his discussion of the problem of women's manhunting by stating that "The young girl today is doing the only permanently thrilling thing left for her to do. . . .[23] Financially secure men, however, had no economic, biologic (by which he meant there was no shortage of partners available) or child-related concerns, and thus marriage was not imperative for them. Yet he did not draw the conclusion that it was the lack of job opportunities open to women, their poor prospects for financial security, as well as the problems associated with contraception, childcare and housekeeping that was pressing women into marriage and housewifery. Instead, he attributed the female man-hunt to women's narcissism, sexual failure, greed, and most of all, to their laziness.

> The behavioristic moral - and we must have morals - is: Women do not like to work (neither do men). There is no natural "instinct" to work. Biologically speaking the hungry animal reaches up and pulls down a banana, reaches out and grasps his female (or vice versa): his hunger adjusted, he rests and sleeps. Work habits are the result of civilization and competition.[24]

Since women had not been trained from infancy to the tradition of competitive and "incessant manipulative work" and since nearly every woman could attract some man who would support her, Watson reasoned that when work presented difficulties or pressure, they dropped out of "the race" to withdraw to the comfortable shelter of marriage, "the shady spot that causes them to lie down and rest".[25]

Such colorful metaphors were characteristic of Watson's writings; so too was his infectious ambivalence. No sooner had he painted the picture of women basking in nuptial idleness than he abruptly dispelled it, along with any notion that his argument upon the issue might be logical. If a woman wanted to pursue her career after marriage, he said, the marriage as such should present no impediment - that is if she was childless and resided in an apartment hotel where all the meals, laundry and cleaning would be handled by someone else. "The having of children," he admitted, "is almost an insuperable barrier to a career. The rearing of children and running of a home for them is a profession second to none in its demands for technique."[26] Maintaining at once that marriage was a haven of restful idleness and that it entailed demanding professional responsibilities allowed Watson to vilify married women for their failings in dress and their own psychological care, for their aging, tired, lifeless and unfit bodies, for utilizing their excess time to wreck their children, and for seeking a different situation when the home provided the opportunity for all the activity they needed for happiness.

According to the behaviorist's definition, happiness is complete absorption in activity, ". . . a matter of training from infancy on, rather than of material circumstance."[27] If a woman were unhappy with or unable to become completely absorbed in her domestic duties, Watson concluded that there must have been something wrong with her training. If she were a feminist or simply wanted a career (other than one which could be achieved quietly and without competing against or usurping any man), Watson surmised that the problem must lie in the inadequacy of her preparation for sexual relations. In an attempt to explain the desires of feminist women, he concluded,

> I can read women only after making careful observations of their behavior over long periods of time. Then I put two and two together like any other scientist. When a woman is a militant suffragist the chances are, shall we say, a hundred to one that her sex life is not well adjusted? . . . . Among the 20 per cent who find adjustment I find no militant

> woman, I find no women shouting about their rights to some fanciful career that men - the brutes - have robbed them of. . . . Most of the terrible women one must meet, women with the blatant views and voices, women who have to be noticed, who shoulder one about, who can't take life quietly, belong to this large percentage of women who have never made a sex adjustment.[28]

In reality, Watson had never undertaken any study of women whatsoever. He garnered the figure of 20 per cent adjustment from a study on marriage, the statistical validity of which he himself questioned.[29] And while admitting his puzzlement over what it was that unsatisfied women wanted, he felt sure that he knew what they needed. "To what were these women aspiring?" he queried. That it was not happiness he was certain.

> These women were too modern to seek happiness: they sought what? Freedom. So many hundreds of women I have talked to have sought freedom. I have tried to find out diplomatically but behavioristically what they mean. Is it to wear trousers? Is it to vote - to hold office- to work at men's trades - to take men's jobs away from them - to get men's salaries? Does their demand for this mystical thing called freedom imply a resentment against child-bearing - a resentment against the fact that men's sex behavior is different from women's(but not so much any more)? I rarely arrive at a reasonable answer.[30]

Nor did he feel compelled to await one. Through casual observation and the review of a few brief biographies of defeated feminists, Watson felt amply confirmed in his view that

> . . . militancy passes as soon as the woman, by the trial-and-error process, finds sex adjustment. Then they cease to hunt for freedom, they lose themselves in their work. Surely the only freedom worth striving for is complete engrossment in activity, be

> that activity writing a play, washing infant's clothes, or losing oneself in the sway of passion.[31]

If the world were shaped by the science of behaviorism, Watson believed this restlessness which he recognized in so many contemporary women, could be eliminated. With proper education, both women and men could experience all the happiness and freedom they could wish for without putting them into competition with one another.

In the behaviorist's utopia no woman would grow to adulthood unprepared for sexual adjustment. The infantilisms, homosexual tendencies and ignorance which ruined her foremothers' lives would be eliminated through the relinquishment of all but the least significant responsibilities of child rearing into the hands of capable professionals. Under the careful guidance of the behaviorist physician, girls would be trained from infancy alongside boys to the same self-reliance, objectivity, efficient emotional reactions, and incessant absorption in activity. At the age of sixteen, when the boys begin to try out several of the industries from which they might later choose a career, the girls in Utopia begin their training in home management and family care. They are taught the domestic sciences of dietetics, cooking, fashion design, millinery art, interior design and decorating. In addition they are given instruction in the handling of men and children:

> They have special instructions in the art of interesting and handling men. They are given instructions in the art and technique of being engaged. They spend a great deal of time learning the technique of sex. They have to learn nursing and be instructed especially in the care, handling, and teaching of young babies and children of all ages.[32]

Just as utopian boys are apprenticed to science, medicine, manufacturing, architecture, mining, and agriculture, Utopian girls learn their jobs by working in homes, restaurants and hospitals. It is during this last phase of their education, which presumably terminates with their first marriage, that they begin to concentrate on developing their beauty, grace and womanly wisdom. ". . . They begin in earnest the study of dancing, of the use of cosmetics, of how to stay thin, of how to be successful hostesses and to put on the intellectual attainments that go into the making of a beautiful, graceful, wise woman."[33]

Unlike the lads, who pass into science or industry without break at the age of twenty, Utopian girls, who are married at "quite an early age," do not undertake all of the activities for which their training prepared them until the age of twenty-eight. At that time, the narcissism which impedes them from assuming the care of children passes away "almost coincidentally" with the appearance of their first wrinkle. Watson admitted that feminine narcissism is one of the most serious problems in his Utopia. "The Utopians realize that, however much care is used in rearing families, narcissism . . . grows up because of the attentions of the males to the more especially beautiful and well favored women."[34] However, it would not be as rampant in Utopia as in other countries, because the initial stock of Utopian women would be chosen with reference to their beauty: "they are all small to medium in stature" and large and the occasional ill-favoured woman are not allowed to breed.[35] Fatness would be as taboo in Utopia as incontinence in other bodily functions, and due to outdoor activities, dancing, athletics and the diligent efforts on the part of the women to preserve their youthfulness, narcissism would be kept down. ". . . All of the women in Utopia would be considered beautiful."[36]

The young women of Utopia, Watson said (mentioning nothing of the middle-aged, the old and the occasional large, fat or ill-favoured women), would feel and act as freely as the men, without having to make incursions into the world of industry; properly educated, they would happily stay home where they were needed. Notwithstanding, he repeatedly gave more compelling reasons for their confinement. If she were given higher education only in the domestic, decorative and the sexual arts, not only would the Utopian woman be unfit for competition with men in any other realm of work, deviation from the sphere of activity assigned to her would invite reconditioning or, if she persistently "misbehaved," - death - at the hands of the behaviorist physician. If she were taught that society valued her almost exclusively for her youthful sexual attractiveness and ability to entertain and comfort men, she would assuredly busy herself with narcissistic and domestic arts. Eventually as nature invariably deflated her most valuable assets and involved her in an increasingly hopeless battle to maintain the Utopian ideal of womanhood, the Utopian woman would decide if she wished to sacrifice what was left of her beauty to bear a child for Utopia, before undertaking a trivialized role in the parenting of Utopia's anonymous children. In the face of such prospects, the art and science of being a successful woman would indeed, as Watson had noted, keep women too busy for careers outside the home.

> The jobs of keeping themselves young and beautiful, useful, and of learning about home science, give them all the activity they need. They have no time for straight industrial pursuits.[37]

Revealing perhaps more than he intended, not only of his true misgivings regarding the neutrality of activity but also of the depth of his illogic, Watson added:

> They realize that they cannot eat their cake and have it too. Their life is just as serious and rich in achievement and endeavor as the men's.[38]

Watson did not acknowledge that it was the Utopian man's unbridled desire for sexual appeasement and feminine beauty that pointed to the foundation for the behaviorist's program for female education and ultimately to the threat of psychological retraining or death for those who resisted it. It seems strange, however, that he should be unaware of or undisturbed by the fact that the Utopian woman's higher education represented the antithesis to her earlier training. Before the age of sixteen, she was trained for self-reliance, objectivity, emotional efficiency, industrial facility and work habits alongside and in the same manner as boys. By training girls thereafter for the unsalaried tasks of child-care, domestic and sexual services only, he effectively extinguished their ability to achieve economic self-reliance and independence. More importantly, he stymied what he considered to be the process of developing the healthy, objective or efficient emotional responses of a self-adjusting adult. Like the contemporary mothers whom he scorned, his girls were trained to give and receive love. By severely limiting the parameters of their environment and skill development, he would rob them of the exposure to the objects and settings which might, according to his theory, free them of infantile emotional responses and give them the broad base of manipulative skills and emotional reactions which he recognized as the essentials and rudiments of self-correcting mental hygiene. In fact, the only characteristics of their earlier education which Watson seemed content to preserve were the training of women for emotional detachment and incessant absorption in activity.

Once women were freed of parent fixations and homosexual tendencies, expertly prepared for the realities of married life and constantly availed of the services of the behaviorist physician, Watson would not admit to any obstacles in the way of women's freedom and happiness, because then they would only have to engross themselves in their tasks of serving their husbands' needs for domestic comforts and perpetually exciting sexual companionship. He stubbornly withheld overt recognition of the fact that their personal gratification or happiness might be tied somehow to the desirability, and quality or meaningfulness of their relationships, work and identity. This was consistent with Watson's thesis that problems such as the meaning of life, apart from observable actions, simply should not arise in the behaviorist school of thought. In a written contribution to the 1920 meeting of the Congress of Philosophy in Oxford he defended this position.

> I should like to say frankly and without combativeness that I have no sympathy with those psychologists and philosophers who try to introduce a concept of 'meaning' ('values' is another sacred word) into behaviour. . . . The question of meaning is an abstraction, a rationalisation and a speculation serving no useful scientific purpose. . . . From the bystander's or behaviourist's point of view the problem never arises. We watch what the

> animal or human being is doing. He means what he does. It is foolish to ask him while he is acting what he is meaning. His action is the meaning. Hence, exhaust the concept of action and we have exhausted the concept of meaning. It is a waste of effort to raise a problem of meaning apart from actions which can actually be observed.[39]

If the method of behaviorism was to yield practical results, Watson warned that the behaviorist must be content to answer his questions from within the confines of natural science, avoiding any speculations which lead to "metaphysical fancies" rather than concrete lines of experimental attack.[40] He rejected the ideas of conceptual thinking and the possibility of humans responding to universal qualities or relations. "Long before behaviourism took me in tow, I came to the conclusion that such things were mere nonsense: that all of our responses are to definite and particular things."[41] Accordingly Watson conceived of women's relationships and work only in the narrow terms of behavioral adjustments to particular stimuli. Other than the rather serious objections which could be raised against his use of such terms as happiness and freedom Watson must be given credit for staying within these limits; however, the most grave and damning weakness of Watson's theoretical work was that, while espousing a doctrine of strict environmentalism, he was ultimately unwilling to apply the same dogma of materialist determinism to men.

Having determined to his satisfaction that in the natural state the human organism has need only of the satisfaction of basic needs, and being theoretically confined to a material explanation for all behavior, Watson could point only to the threat of privation as the stimulus for work and human relationships. Idleness was the natural human condition, and since women could almost always seduce a man into providing her with the necessities of life, he believed that it was natural that she should opt to accept his support and happily undertake what he believed to be the less exertive activities which man required of her in exchange. If idleness and the pursuit of food, shelter and sex are the natural human condition for both women and men, it is not readily apparent why men would allow themselves to be seduced into undertaking what Watson believed to be the more demanding role of providing for one woman and possibly children in exchange for sex and domestic comforts. However, just as Watson unwittingly admitted that man sought excitement and novelty as well as companionship and emotional support in his sexual partnerships, so did he also reveal his belief that while the dogma of mechanistic materialism might adequately account for women's nature and behavior, there was a good deal more to man and his behavior than the simple satisfaction of basic needs and the inclination to rest when they were sated.

When Watson decried the crippling effects of traditional methods of child-rearing he was not concerned merely with ensuring the ability of every individual to cover their basic needs but rather with the failure of many men to pursue the American dream and improve their status, as Watson had himself, through incesssant dedication to work. The purpose of perfecting the adjustment of the child, he said, was to lift him above those whose lives were ". . . taken up in trying to keep up with the procession of those struggling to obtain just bread, meat, and a roof for shelter."[42] Mastery of the techniques and routines of sex and work were to release the individual from the mundane to the level of leisure required for originality and experimentation with life. Too many people, he complained (though in the context it is obvious that he meant men), had lost sight of the fact that skill development and the "general organization" that come in work habits are valuable tools for self-development, worldly success and even genius.[43] Lamenting the widespread laziness evident to him everywhere Watson commented: "It seems to be a human failing to stop improving at the lowest economic level that enables an individual to get along in his group."[44]

Watson's pessimism over the work habits of young men did not wane with the passing of years; however, as he wrote the final article of his career,(commissioned by Cosmopolitan but never published), he admitted that, in concentrating on perfecting the habits of the individual he had overlooked the importance of the conditions of the world which was to receive them.[45] Under the strain of a deep depression himself, Watson wrote out of concern over the high and increasing rate of suicide, particularly among men in their prime. It had long been his belief, he said, "that society today is not offering to its members enough values of an interesting kind to make people who are in a jam for any reason want to take the trouble to live."[46] He confessed to finding himself in agreement with the young men graduating from college who were discouraged by the prospects which awaited them. Notwithstanding the poor work habits of youth, Watson admitted that not only did the present vocational environment fail to capture their emotions but that it had equally failed to provide stimulative values to replace those which had passed with the crumbling of social institutions, many of which Watson had sought to tear down. The future of young men and women, he decided, rested not only in the restitution of abiding social values, the realignment of educational institutions to more practical ends and the restoration of interesting thrills, romance and glamour to the work place and marriage; it depended too on selling youth on the idea that such stimulative value could be found in every institution from marriage to streetcleaning, bridge building, dirt farming or orchid raising.[47]

When he sought to understand men and their motives for living, Watson was clearly unconcerned with eschewing the question of meaning and staying within the boundaries of natural science to which mechanistic materialism bound him. The mechanistic model simply could not accommodate the eternal quest for novelty, which he had determined to be the cause of man's sexual infidelity; nor could it explain why man ever sought to do more than he absolutely must to stay alive or why the cessation of striving at that level of comfort seemed to him a human failing. Irrespective of the adequacy of his treatment of these questions, Watson's foray into these matters helps us to better understand the logic of his ideal for the education of women as well as his reasons for reserving his determinist point of view for women alone.

Watson valued work not simply as a neutral stimulus, nor even solely as a vehicle for economic mobility and prestige: to him work was the primary source of masculine identity, the channel for man's self-improvement and creative capacity. It was at once both his reason for being and his escape from being. The only activities in which Watson felt happy and free were those in which he could escape himself, the trials of affective life and the irritations of the metaphysical. "Surely the only freedom worth striving for," he said, "is complete engrossment in activity . . . or losing oneself in the sway of passion."[48] It was his belief, however, and evidently his experience as well, that one got in the way of the other. His incessant desire for exciting sex was the one great obstacle to the unimpeded pursuit of his vocations and the full engagement of himself in the satisfactions of his labours. Settling the matter of his sexual behavior was for Watson, and he decided for all men, the precondition of his vocational pursuits, happiness and freedom. Yet he would insist that for woman sexual adjustment was not the precondition but the terminus of her strivings for any vocation or freedom beyond her home and sexual partner.

As long as he maintained that it was woman's nature to be determined by her physiology, content with the satisfaction of her basic needs, while man was compelled by the drive for stimulation and novelty to transcend his, Watson was able to assure himself of man's continued economic and erotic hegemony. He could advocate the control and manipulation of women not only with impunity but with the precision and authority of science. Utilizing the science of behaviorism, Watson believed that not only could he better train men for the virile, productive, competitive and unemotionally practicality demanded of them in an industrial capitalist society but that woman could be trained to facilitate the achievement of this masculine ideal. By confining women to the home, curtailing her attachments to children and other women, and raising their sexual and domestic services to the level of expertise, Watson believed that not only would the problem of women joining in the defeminizing competition for men's jobs be eliminated but that the greatest threat to social stability and the one impediment to man's own vocational pursuits could be safely subdued or constrained.

Though he may have initiated a revolution in psychological thought, his visions of a brave new world, and his chic and daringly open promotion of sexual education, mutual erotic pleasure and performance, could not conceal the fact that, on the subject of women, the only change Watson could tolerate and contribute to was the utilization of behaviorist methods to promote the modern and immensely profitable practice of subverting woman's heterosexual liberation to confirm the gender hierarchy.

FOOTNOTES

1. John B. Watson, *Behaviorism* (Chicago: The University of Chicago Press, [1924] 1966), 302-3.

2. John B. Watson, "It's Your Own Fault," *Collier's* 82, no.29 (1928): 34.

3. John B. Watson, *Psychological Care of Infant and Child* (New York: Arno Press Ind., [1928] 1972), 8. John B. Watson, "What About Your Child?" *Hearst's International - Cosmopolitan* 85 (October 1928): 108.

4. When asked by an interviewer how behaviorism could hope to change the daily life of an entire society, Watson's reply was that his plans were not for "people who live in the slums". "I only mean them [to be] for the cultured. . . . These are the only sort of people who will assimilate my ideas and be guided by them." Quoted in Ben Harris, "'Give Me a Dozen Healthy Infants...' John B. Watson's Popular Advice on Childrearing, Women, and the Family," in *The shadow of the Past: Psychology Portrays the Sexes*, ed. Miriam Lewin (New York: Columbia University Press, 1984), 149.

5. John B. Watson, "Should a Child Have More Than One Mother? A Psychologist's Notion of a Better Way to Grow Up," *Liberty* 6 (June 1929): 31.

6. John B. Watson, "The Behaviorist Looks at Youth," *Independent Woman* 7 (1928): 440.

7. John B. Watson, *Psychological Care*, 80.

8. Ibid., 81-2.

9. Ibid., 87.

10. Ibid., 159.

11. John B. Watson, "The Behaviorist Looks," 439.

12. John B. Watson, *Psychological Care*, 158.

13. John B. Watson, "The Behaviorist Looks," 440.

14. John B. Watson, *Psychological Care*, 182-83.

15. John B. Watson, "Men Won't Marry Fifty Years From Now," Hearst's International - Cosmopolitan (June 1929): 71.

16. Ibid.

17. Ibid.

18. Ibid.

19. Ibid.

20. Ibid., 106.

21. Ibid.

22. See discussion of John B. Watson, "The Relative Efficiency of the Two Sexes" subsection in The Ways of Behaviorism (New York: Harper & Brothers Publishers, 1928), 411-15.

23. John B. Watson, "Men Won't," 71.

24. John B. Watson, "The Weakness of Women," in These Modern: Women Autobiographical Essays from the Twenties, ed. Elaine Showalter (New York: The Feminist Press, 1978 [originally published in *The Nation* 6 (July 1927)]): 144.

25. Ibid.. John B. Watson, The Ways, 414.

26. John B. Watson, "The Weakness," 144.

27. John B. Watson, "After the Family - What?" in New Generation; the intimate problems of modern parents and children, ed. Victor-Francis Calverton and S.D. Schmalhausen (New York: Macaulay, 1930), 73.

28. John B. Watson, "The Weakness," 143.

29. The study, based on one hundred men and one hundred women selected by the researcher for their normalcy and because they were also intelligent and articulate, stands as a shocking example of how hopelessly misleading the claim to objectivity can be even less because of its study group selection procedure than for its data gathering and interpretation. John B. Watson, "Introduction," in What is Wrong With Marriage by Hamilton, G.V. Hamilton and Kenneth MacGowan (New York: Albert and Charles Boni, 1929), p.xx, p.xviii-xix.

30. John B. Watson, "The Weakness," 142.

31. Ibid., 143.

32. John B. Watson, "Should a Mother," 35.

33. Ibid.

34. Ibid., 34.

35. Ibid.

36. Ibid.

37. Ibid.

38. Ibid.

39. John B. Watson, "Is Thinking Merely the Action of Language Mechanisms?" British Journal of Psychology XI (1920-21): 103.

40. Ibid., 97.

41. Ibid., 102.

42. John B. Watson, Psychological Care, 151.

43. John B. Watson, Behaviorism, 212.

44. Ibid.

45. According to David Cohen, the article was refused publication on the grounds that it was too depressing and, only a few months later, the editor of Cosmopolitan committed suicide himself. David Cohen, J.B. Watson: The Founder of Behaviorism (London: Routeledge and Kegan Paul Ltd., 1979), 264. John. B. Watson, "Why I Don't Commit Suicide" 1932, unpublished manuscript Library of Congress, MS Division, Washington, D.C., 3.

46. Ibid., 2.

47. Ibid., 14.

48. John B. Watson, "The Weakness," 143.

CHAPTER VI

CONCLUSION

The account of the life of John Broadus Watson presented in Chapter II reveals a solitary character in search of escape from the discomforting anxieties of a troubled life and uncertain times. Watson was not unique in upholding the ideal of the self-made and macho man or in trying to make psychology more objective and useful in the management of human affairs. His antipathy towards religion, metaphysics, homosexuality, women, and all things "unscientific" were shared by a great number of Americans as they struggled to accomodate themselves to the complex realities of the dawning twentieth century. His biography suggests that, out of a deep desire for self-protection, with an extreme and blind single-mindedness he sought for the security offered by positivism and the masculine ideal of impervious self sufficiency.

As a student of animal learning Watson took the first step toward translating his personal convictions into the framework of a scientific theory when he assumed that the purely physiological associative learning process, which he had observed in rats, was also the basis of human learning. In claiming that the difference between man and brute is reducible to the superiority of man's structural speech mechanisms, Watson gave the impression that the "facts of science" revealed the inappropriateness of all metaphysical and subjective referents in the study of animal and human psychology and demonstrated the need for an immediate adoption of the objective methods of natural science. Defiantly thumbing his nose at those who would not drop the older terms of vitalistic psychology, he leaped the chasm of unresolved problems, unanswered questions and criticisms that stood between them and the terra firma of natural science with the bravado of one of his Utopian men starting "naked into the wilds of Africa". Having once made the first treacherous leap, it appeared that much less difficult thereafter.

Discarding the concept of human instincts as easily as he had mental processes, Watson cleared the way for his espousal of extreme environmentalism - the crucial plank of his behaviorist platform. In denying the inheritance of capacity, talent, temperament, mental constitution or other characteristics and declaring personality to be nothing but a ceaseless stream of activity or the end product of an individual's habit systems, Watson believed that he had discovered the theoretical "free hand" which he needed to shape and control the destiny of future generations. Given a totally malleable human being, the formulation of behavior in terms of stimulus and response, and the perfected techniques of conditioning and deconditioning, Watson believed that, provided the training began early enough, the psychologist could shape any person into happy conformity with the specifications desired by society .

So clearly was Watson's agenda set by the practical orientation which he had ascribed to modern psychology that he was not deterred for a moment by the fact that he, the champion of experimental procedure, had contributed very little to the actual body of scientific data supportive of his claim that behavior could be explained in terms of chains of simple conditioned responses. And despite his recognition of the need for psychologists to refrain from making moral or value judgements, Watson could not restrain himself from stating his preferences for certain social standards, foremost of which was the rejection of what he referred to as "emotional responses" in favour of the efficiency of scientific or objective modes of behavior. Nevertheless, he struck a chord with the American people, many of whom (including feminists) yearned for the liberating effects of science and the democratic ideal of equality of opportunity which environmentalism seemed to offer.

To Watson, strict environmentalism offered the theoretical foundation which he required to support his reorientation of psychology toward scientific methods and practical applications; however, the determinism inherent in his environmentalist position stood in direct opposition to his conception of a free handed experimentalist shaping and controlling society along scientific lines, as well as to his idea of the self-made man. Watson was able to overlook this particular problem with ease; more bothersome to him was the fact that environmentalism could also create a theoretical obstacle to his ideal of a social organization based upon monogamous heterosexual relationships and separate spheres of activity for men and women.

Watson was happy to rescue children from the feminine taint of emotionality by excising from the concept of motherhood any inherited characteristics, including a mothering instinct, and transferring control of child-rearing into the capable hands of scientific experts. However, he was considerably less enthusiastic about the implications of this child-rearing excercise, that is the release of women's potential to become something other than a wife and mother. Watson's environmentalism levelled the playing field and raised not only the spectre of women legitimately and successfully competing against men within traditionally male spheres of activity, but also of her escape from the domestic and sexual servitude which he believed critical to social order and man's pursuit of the work ethic.

In an attempt to rationalize in scientific terms his suggestion that women's education be limited to training for domestic and sexual services, Watson offered a definition of woman's nature in the terms of basic biological needs, effectively circumventing the question of what meaning she might find in a life determined solely by the performance of the actions required to satisfy her biologic requirements for food, shelter and, most particularly, for sex. Declaring that every woman could seduce some man into providing her with the necessities of life in exchange for sexual and domestic services, Watson reasoned that all healthy women would naturally respond to the threat of privation by adopting this most expedient and satisfying pattern of behavior. The behaviorist's role was to provide society with suggestions for how women might best be trained to effectively engage in the necessary behavior. However, betraying a lack of confidence in the adequacy of his materialist explanation, Watson felt compelled to add that, if she were trained by the behaviorist to become absorbed in this activity, woman would also find happiness and all the freedom she needed. In fact, the suggestion that women were, by nature, bovinely contented by the mere satisfaction of their basic biological needs and, that with the proper education, they would happily and quietly occupy themselves with the tasks of providing the services which men required of them, did not proceed from the science of behaviorism, but from the desperate insecurities of Watson who tragically embodied the extreme of the contemporary willingness of American males to trade heart and soul for the reassurance of dominance and control.

In his final essay, Watson came as close as he ever would to admitting that he was mistaken in his views about women's nature, and to facing what must have been the most threatening realization of his life: that, even if he were granted his wish to shape the destiny of future generations, he could not rid people of the need for affective and metaphysical ties. Yet, with characteristic illogic or blindness, after admitting that both men and women, if they were going to continue to opt for life, required work which would capture their emotions and values which would fill the void created by weakening inner family ties, the disintegration of marriage, and disappearance of patriotism, hero worship and relgion, Watson first decided that all this could be accomplished by injecting glamour, romance and thrills into the institutions of work and marriage and then finally that it was not that stimulative values were lacking in work and marriage after all - only that they were not being promoted. Apparently Watson had more confidence in himself as an advertising man than as a creator of a scientifically shaped future. Ultimately he was left struggling to convince even himself that questions about the purpose of existence were irrelevant and that the meaning of all behavior was entirely contained within the activity itself.

BIBLIOGRAPHY

Bakan, David. "Behaviorism and American Urbanization." Journal of the History of the Behavioral Sciences 2 (1966): 5-22.

Bergmann, Gustav. "The Contribution of John B. Watson." Psychological Review 63 (1956): 265-76.

Birnbaum, Lucille Terese. "John Broadus Watson and American Social Thought, 1913-1933." Ph.D. diss., University of California, 1964.

Block, Maxine, ed. "Watson, John Broadus." in Current Biography: Who's News and Why. New York: H.W. Wilson Comp., 1942.

Brandt, Lewis W. "American Psychology." American Psychologist 25 no.1 (November 1980): 1091-93.

Burnham, John Chynoweth. "On the Origins of Behaviorism." Journal of the History of the Behavioral Sciences 4 (1968): 143-51.

________. "The New Psychology: From Narcissism to Social Control." In Change and Continuity in Twentieth-Century America: The 1920's, eds. John Braeman, Robert H. Bremner, David Brody, 351-98. Ohio: Ohio State University Press, 1968. 351-98.

Buss, A.R. "Behaviorism." American Pshychologist 30 (October 1975): 988-1002.

Calhoun, Arthur W. A Social History of the American Family Vol. III: From 1865 to 1919. New York: Barnes and Noble, Inc., [1919] 1960.

Cohen, David. J.B. Watson The Founder of Behaviorism. London: Routeledge and Kegan Paul Ltd., 1979.

Cott, Nancy F. The Grounding of Modern Feminism. New Haven: Yale University Press, 1987.

Creelan, Paul G. "Watsonian Behaviorism and the Calvinist Conscience." Journal of the History of the Behavioral Sciences 10 (1974): 95-118.

________. "Religion, Language, and Sexuality in J.B. Watson." Journal of Humanistic Psychology 15 (1975): 55-78.

Dubbert, Joe L. "Progressivism and the Masculinity Crisis." The Psychoanalytic Review 61 (1974): 443-55.

Dunlap, Knight. "The Social Need for Scientific Psychology." Scientific Monthly 11 (1920): 502-517.

Ehrenreich, Barbara, and Deirdre English. For Her Own Good 150 Years of the Experts' Advice to Women. Garden city: Anchor Press, 1978.

Ewen, Stuart. Captains of Consciousness Advertising and the Social Roots of the Consumer Culture. New York: McGraw Hill Book Company, 1976.

Filene, Peter G. Him/Her/Self: Sex Roles in Modern America. Baltimore: The John Hopkins University Press, 1986.

Hannush, Mufid J. "The Nature of the Relationship Between Biographical and Professional Values: A challenge to the Value-Neutrality of the Behaviorisms of J.B. Watson and B.F. Skinner." Ph. D. diss., Duquesne University (1981).

________. "The Mirage of Value-Neutrality in the Behaviorisms of J.B. Watson and B.F. Skinner: The Nature of the Relationship Between Personal and Professional Value Areas." Journal of Phenomenological Psychology 14 no.1 (1983): 43-90.

________. "John B. Watson Remembered: An Interview with James B. Watson." Journal of the History of the Behaviorial Sciences 23 (April 1987): 137-52.

Harrell, Willard. and Ross Harrison. "The Rise and Fall of Behaviorism." The Journal of General Psychology 18 (1938): 367-421.

Heidbreder, Edna. Seven Psychologies. New York: Appleton-Century-Crofts, 1933.

Harris, Ben. "'Give Me a Dozen Healthy Infants...' John B. Watson's Popular Advice on Childrearing, Women, and the Family." In The Shadow of the Past: Psychology Portrays the Sexes, ed. Miriam Lewin, 126-54. New York: Columbia University Press, 1984.

Jones, Mary Cover. "Albert, Peter, and John B. Watson." American Psychologist 29 (1974): 581-83.

Karier, Clarence J. Scientists of the Mind: Intellectual Founders of Modern Psychology. Chicago: University of Illinois Press, 1986: 1-23.

King, William P., ed. Behaviorism a Battle Line! Nashville: Cokesbury Press, 1930.

Larson, Cedric A. and John J.Sullivan, "Watson's Relation to Tichener." Journal of the History of the Behavioral Sciences 1 (1965): 338-354.

________. "Watson's Canadian Summer Retreat." The Canadian Psychologist 13 no.2 (April 1972): 135-142.

Leys, Ruth. "Meyer, Watson, and the Dangers of Behaviorism." Journal of the History of the Behavioral Sciences 20 (April 1984): 128-47.

Lippmann, Walter. Public Opinion. New York: Harcourt, Brace and Company, 1922.

Logue, A.W. "Behaviorist John B. Watson and the Continuity of the Species." Behaviorism 6 (1978): 71-79.

MacGowan, Kenneth. "The Adventure of the Behaviorist." The New Yorker 4 (October 6 1928): 30-32.

Marchand, Richard. Advertising the American Dream Making Way for Modernity, 1920-1940. Berkeley: University of California Press, 1985.

Morawski, Jill. "Pyschology and Ideal Societies; The Utopias of Hall, MacDougal, Muensterberg, and Watson." Ph.D. diss., Ottawa: Carleton University (1980).

________. "Not Quite New Worlds Psychologists' Conceptions of the Ideal Family in the Twenties." The Shadow of the Past: Psychology Portrays the Sexes, ed. Miriam Lewin, 126-54. New York: Columbia University Press, 1984.

Oleson, Alexandra and John Voss. "Introduction." The Organization of Knowledge in Modern America 1860-1920, ed. Alexandra Oleson and John Voss. Baltimore: John Hopkins University Press, 1979.

President's Research Committee On Social Trends. Recent Social Trends in the United States Vol.I. and II. New York: McGraw-Hill Book Company, Inc., 1933.

Rapp, Rayna and Ellen Ross. "The 1920s Feminism, Consumerism, and Political Backlash in the United States." Women in Culture and Politics, A Century of Change, eds. Judith Friedlander, Blanche Wiesen Cook, Alice Kessler-Harris and Carroll Smith-Rosenberg, 52-61. Bloomington Indiana University Press, 1986.

Rodgers, Daniel T. "In Search of Progressivism." Reviews in American History 10 (December 1982): 113-32.

Ross, Dorothy. "The 'Zeitgeist' and American Psychology." Historical Perspectives in Psychology: Readings, ed. Virginia S. Sexton and Henryk Misia, 250-59. Belmont: Brooks/Cole, 1971.

________. "The Development of the Social Sciences." In The Organization of Knowledge in Modern America 1860-1920, ed. Alexandra Oleson and John Voss, 107-38. Baltimore: John Hopkins University Press, 1979.

Rothman, Sheila. Woman's Proper Place. New York: Basic Books, Inc., 1978.

Samelson, Franz. "Struggle for Scientific Authority: The Reception of Watson's Behaviorism, 1913-1920." Journal of the History of the Behavioral Sciences 17 (1981): 399-425.

________. "Organizing for the Kingdom of Behavior: Academic Battles and Organizational Policies in the Twenties." Journal of the History of the Behavioral Sciences 21 (1985): 33-47.

Schlossmann, Steven L. "Before Home Start: Notes Toward a History of Parent Education in America, 1897-1929." Harvard Educational Review 46 (1976): 436-467.

________. "The Formative Era in Parent Education: Overview and Interpretation." Parent Education and Public Policy, eds. Ron Haskins and Diane Adams. New Jersey: Ablex Publishing Corp., 1983.

Schultz, Duane P. A History of Modern Psychology. New York: Academic Press, 1969.

Simmons, Christina. "Companionate Marriage and the Lesbian Threat." Frontiers 4 No.3 (1979): 54-59.

Skinner, B.F. "John Broadus Watson, Behaviorist." Science 23 (January 1959): 197-98.

Titchener, E.B. "On 'Psychology As the Behaiviorist Views It'." Proceedings of the American Philosophical Society LIII no. 213 (January-May 1914): 1-17.

Ward, James F. "Arthur F. Bentley and the Foundations of Behavioral Science." Journal of the History of the Behavioral Sciences 17 (1981): 222-31.

Watson, John B. Animal Education: An Experimental Study on the Psychical Development of the White Rat. Chicago: University of Chicago Press, 1903.

________. "Psychology as the Behaviorist Views It." Psychological Review 20 (1913): 158-77.

________. "Image and Affection in Behavior." The Journal of Philosophy Psychology and Scientific Methods X no.16 (July 31 1913): 421-28.

________. Behavior An Introduction to Comparative Psychology. New York: Holt, Rinehart and Winston, Inc, [1914] 1967.

________. "The Place of the Conditioned-Reflex in Psychology." The Psychological Review XXIII no.2 (March 1916): 89-116.

________. "Behavior and the Concept of Mental Disease." The Journal of Philosophy Psychology and Scientific Methods XIII no.22 (October 26 1916): 589-597.

________. "The Psychology of Wish Fufillment." The Scientific Monthly III (1916): 479-487.

________. "Does Holt Follow Freud?" The Journal of Philosophy Psychology and Scientific Methods XIV no.4 (February 15 1917): 85-92.

________. "Emotional Reactions and Psychological Experimentation." The American Journal of Psychology XXVIII No.2 (April 1917): 163-74.

________. "An Attempted Formulation of the Scope of Behavior Psychology." The Psychological Review XXIV no.5 (September 1917): 329-52.

_________. "Practical and Theoretical Problems in Instincts and Habit." In Suggestions of Modern Science Concerning Education, ed.Herber S. Jennings, John B. Watson, Adolf Meyer, William I. Thomas, 53-99. New York: The Macmillan Company, [1917] 1925.

_________. Psychology From the Standpoint of a Behaviorist. Philadelphia: J.B. Lippincott Company, [1919] 1929.

_________. Letter from J.B. Watson to Adolf Meyer 13 August 1920. Adolf Meyer Archive, Alan Mason Chesney Archives: Johns Hopkins Medical Institutions.

_________. "Is Thinking Merely the Action of Language Mechanisms?" British Journal of Psychology XI (1920-21): 87-104).

_________ and Rosalie Rayner Watson. "Studies in Infant Psychology." The Scientific Monthly XIII (December 1921): 493-515.

_________. "What is Behaviorism?" Harper's Monthly 152 (May 1926): 158-77.

_________. "What the Nursery Has to Say About Instincts." In The Psychologies of 1925 Powell Lectures in Psycholocial Theory, ed. Carl Murchison, 1-36. Worchester: Clark University Press, 1926.

_________. "Experimental Studies on the Growth of the Emotions." Psychologies of 1925 Powell Lectures in Psychological Theory, ed. Carl Murchison, 37-58. Worchester: Clark University Press, 1926.

_________. "Recent Experiments on How We Lose and Change Our Emotional Equipment." Psychologies of 1925 Powell Lectures in Psychological Theory, ed. Carl Murchison, 59-82. Worcester: Clark University Press, 1926.

_________. "The Weakness of Women." In These Modern Women Autobiographical Essays from the Twenties, ed. Elaine Showalter, 141-44. New York: The Feminist Press, [originally published in The Nation 6 (July 1927)] 1978.

_________. "The Origin and Growth of Behaviorism." Archiv Fur Systematische Philosophie New Series 30 (1927): 247-62.

________. "Feed Me On Facts." The Saturday Review of Literature (June 16 1928): 966-67.

________. "What About Your Child?" Hearst's International - Cosmopolitan 85 (October 1928): 76.

________. "The Behaviorist Looks at Youth." Interview by Lilian G. Genn. Independent Woman 7 (1928): 439.

________. "It's Your Own Fault." Collier's 82 no.29 (1928): 29.

________. "The Unconscious of the Behaviorist." In The Unconscious: A Symposium, ed. E.S. Drummer, 91-113. New York: Knopt, 1928.

________. Psychological Care of Infant and Child. New York: Arno Press Inc., [1928] 1972.

________. The Ways of Behaviorism. New York: Harper & Brothers Publishers, 1928.

________. "The Behaviorist's Utopia [1928-29]." Special Collections, Library of Congress, Washington, D.C.

________. "Should a Child Have More Than One Mother? A Psychologist's Notion of a Better Way to Grow Up." Liberty 6 (June 1929): 31-35.

________. "Men Won't Marry Fifty Years From Now." Hearst's International - Cosmopolitan (June 1929): 71.

________ and Will Durant. "Is Man a Machine? A Socratic Dialogue." The Forum 82 (November 1929): 264-70.

________ and Will Durrant. "Can We Make Our Children Behave? A Socratic Dialogue." Forum 82 (December 1929): 346-50.

________. "Introduction." In What is Wrong With Marriage by G.V Hamilton, and Kenneth MacGowan, xiii-xxi. New York: Albert and Charles Boni, 1929.

________. "After the Family - What?" In New Generation; the intimate problems of modern parents and children, ed. Victor Francis Calverton, and S.C. Schmalhausen, 55-73. New York: Macaulay, 1930.

________. "How to Grow a Personality." In Psychology Series. Lecture no.12. Chicago:The University of Chicago Press, January, 1932.

________. "Why I Don't Commit Suicide (1932)." MS Division, Library of Congress, Washington, D.C..

________. "John Broadus Watson." In A History of Psychology in Autobiography, ed. Carl Murchison, 3:271-81. Worcester:Clark University Press, 1936.

Watson, Rosalie Rayer. "I am the Mother of a Behaviorist's Sons." Parent's Magazine 5 no.12 (December 1930): 16.

Winkler, John K. and Walter Bromberg. "Watson the Iconoclast." In The Mind Explorers, 285-310. New York: Reynal and Hitchcock Inc., 1939.

Woodsworth, R.S. "John Broadus Watson: 1878-1958." American Journal of Psychology LXXII (June 1959): 301-10.